

THE
PHRENOLOGICAL
MAGAZINE



MAGAZINE



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THE
Phrenological Magazine:
A JOURNAL OF
EDUCATION AND SELF-CULTURE.

EDITED BY
ALFRED T. STORY,
AUTHOR OF
“THE FACE AS INDICATIVE OF CHARACTER,” “A MANUAL OF
PHRENOLOGY,” “FIFINE,” ETC.

VOLUME VI., 1890.
[NEW SERIES.]

LONDON: L. N. FOWLER,
IMPERIAL BUILDINGS, LUDGATE CIRCUS, E.C.

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INDEX.

	PAGE		PAGE
A Review	483	DELINATIONS :—	
Academic Poll, An	183	Dom Pedro...	I
Air, The Living	193	Dr. Carl Peters	45
Allinson, Dr. T. R.	441	Miss Amye Reade	89
Allinson, Dr. T. R., at the Fowler Institute	501	Henry M. Stanley	133
An Interview with Prof. W. Cross	514	Mr. Edward T. Smith	177
Anatomical Objections to Phren- ology Considered and Answered	29	Surgeon T. Parke	221
Anthropology at the British Associa- tion	417	Mr. Henniker Heaton, M.P. ...	265
Anthropology, Criminal	423	Mrs. H. M. Stanley... ...	309
Are Criminals Responsible?	383	Miss Fawcett	353
Association, British Phrenological 33, 107, 158, 200, 474		Mr. Blackburne... ...	397
Bible Psychology and the Phren- ology of the Future	311, 377	Dr. T. R. Allinson	441
Blackburne, Mr.	397	Mr. Alderman Savory	481
Book Notices 41, 127, 216, 263, 305, 392, 520		Education	104
“Brain Growth,” Sir J. Crichton Browne on	119	Educational Ideal, Chas. Kingsley as an	186
Brain, Plurality of Functions of the	266	Englishwomen, Noted	300
Brain Power, The Equality of, in Man and Woman Considered	443, 487	Equality of Brain Power in Man and Woman Considered ...	443, 487
British Association, Anthropology at the	417	Expression, Physiognomy and ...	94
Browne, Sir J. Crichton, on “Brain Growth”	119	Fawcett, Miss...	353
Can there be a Science of Character?	152	Fools	63
Character Sketches from Photo- graphs ... 43, 87, 131, 174, 218, 264, 307, 350, 394, 438, 481,	522	Fowler Institute, The 92, 139, 202, 259, 323	
Character, Can there be a Science of?	152	Fowler Institute, Dr. T. R. Allinson at the	501
Chemistry of Thought	24	Fruit, Vegetables and	165
Character, Some Effects upon ...	331	Functions of the Brain, Plurality of	266
Claims of Phrenology Critically Examined	5	Gall’s System and Phrenology ...	318
Competition, Our Prize... ...	262, 306	Gleaner, The	449
Correspondence 39, 128, 168, 211, 260, 304, 348, 388, 437, 477,	519	Greatness and Goodness ...	100, 135
Criminal Anthropology... ...	423	Harmony...	77
Criminals: their Nature and Re- sponsibility...	195	Henniker Heaton, Mr., M.P. ...	265
Criminals Responsible, Are? ...	383	Hero, True Moral... ...	2
Cross, Prof. W., An Interview with	514	Home-tried Recipes 85, 129, 174, 217, 263	
Dawson, Rev. W. J., and Phren- ology	385	How Far can we Go ?	13
		How to be Well	54
		How to Sleep and How Not to Sleep	179
		Insanity, Sanity and	323
		Institute, The Fowler 92, 139, 202, 259, 323	
		Is Man a Unity, a Duality, or a Trinity?	50
		Kingsley, Chas., as an Educational Ideal	186

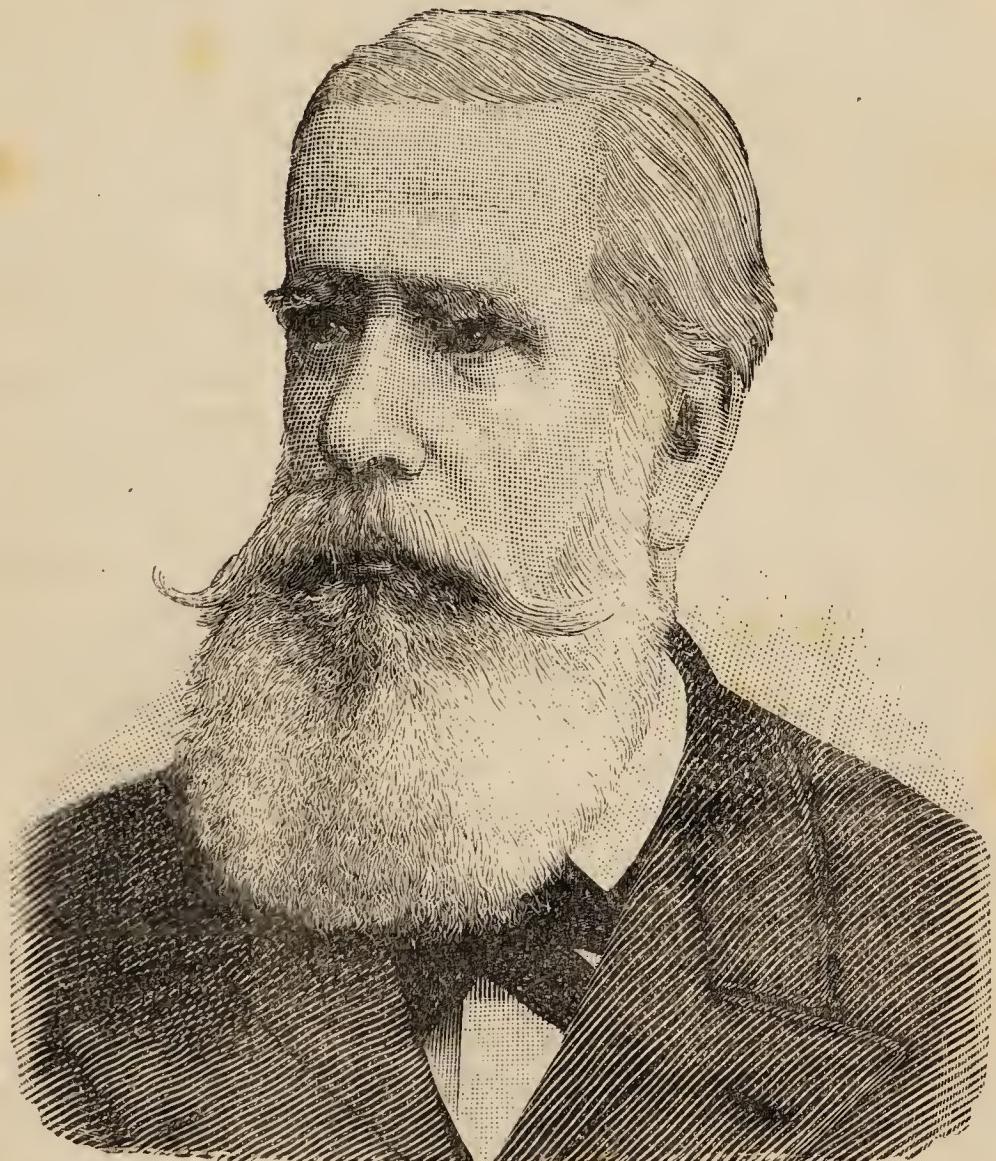
	PAGE	PAGE	
La Bruyère	379	Phrenology, Gall's System and ...	318
Lady Senior Wrangler, A	328	Phrenology, Psychology of ...	360
Life, The Science of	246	Phrenology, Rev. W. J. Dawson and	385
Living Air, The	193	Phrenology, Mr. Herbert Spenceron	398
Man, a Unity, a Duality, or a Trinity, Is?...	50	Phrenology, Metaphysics of...	430, 457
Maudsley, Dr. Henry, on Phrenology	493	Phrenology, Dr. Henry Maudsleyon	493
Men and Women of Our Times		Phrenologists, What, are Doing	40,
	356, 412, 453, 497	85, 173, 214, 261, 304, 436, 475, 516	
Mesmeric Power	235	Physiognomy and Expression ...	94
Mesmeric Dangers...	423	Physiological Research, Phreno-	
Mesmerism : What is it?	141	logical Aspect of Modern	223, 276
Metaphysics of Phrenology ...	430, 457	Plurality of Functions of the Brain	266
Mind—its Development	146	Poll, An Academic	183
Mind, A Study of	290	Practical Phrenology ...	68, 112
Month, Notes and News of the		Psychology of Phrenology ...	360
39, 82, 126, 166, 210, 302, 346,		Prize Competition, Our... ...	262, 306
	387, 433, 475, 516	Prize Questions for August ...	323
Mistaken Notions : Phrenological and Social ...	420, 468	Pulpit, Phrenology in the ...	75
Noted Englishwomen	300	Reade, Miss Amye	89
Notes and News of the Month		Recipes, Home Tried 85, 129, 174,	
39, 82, 126, 166, 210, 302, 346,		217, 263	
	387, 433, 475, 516	Religion, Phrenology and ...	47
Notices, Book 41, 127, 216, 263, 305,		Review, A	483
	392, 520	Sabbath Song, The Shepherd's ...	483
Overwork	203, 239	Sanity and Insanity	323
Parke, Surgeon T....	221	Savory, Mr. Alderman ...	481
Pedro, Dom	1	Science of Life, The ...	246
Peters, Dr. Carl	45	Science of Sex, The ...	19
Photographs, Character Sketches from 43, 87, 131, 174, 218, 264,		Senior Wrangler, A Lady ...	382
	307, 350, 394, 438, 481, 522	Sex, The Science of ...	19
Phrenological Aspect of Modern Physiological Research ...	223, 276	Sleep, How to, and How Not to	
Phrenological Association, British		Sleep ...	179
33, 107, 158, 200, 474, 504		Smith, Mr. Edward T....	177
Phrenology, Claims of, Critically Examined	5	Some Effects upon Character ...	331
Phrenology, Anatomical Objections to, Considered and Answered ...	29	Spencer, Mr. Herbert, on Phren-	
Phrenology and Religion	47	ology ...	398
Phrenology, Practical	68, 112	Stanley, Henry M...	133
Phrenology in the Pulpit	75	Stanley, Mrs. H. M. ...	309
Phrenology Vindicated	122	Study of Mind, A ...	290
Phrenology Proved, Illustrated, and Applied 253, 294, 338, 365, 403,		Suggestion, Treatment by ...	271
	460, 505	The Shepherd's Sabbath Song ...	483
Phrenology of the Future, Bible Psychology and the ...	311, 377	Thought, Chemistry of ...	24
		Times, Our, Men and Women of	
		356, 412, 453, 497	
		Treatment by Suggestion ...	271
		True Moral Hero ...	2
		Vegetables and Fruit ...	165
		What Phrenologists are Doing 40,	
		83, 173, 214, 261, 304, 436, 475, 516	

THE
Phænological Magazine.

JANUARY, 1890.

DOM PEDRO II.

THE ex-Emperor of Brazil has a noble-looking head, with a sound constitution and a splendid physique, denoting that all his powers are available. He possesses every quality necessary for action and endurance. It would be next to impossible for him to live an



idle inactive life. He has a predominance of the motive and mental temperaments, with sufficient vital power for a favourable balance—all favouring vigour of thought and executive action.

Dom Pedro has a positiveness of character and a strength of will which give him power to resist disease, to endure change of climate, and to always sustain his own individuality. In a passive state, he is pliable and easily influenced, but as an antagonist he is hard to conquer. He has sufficient confidence in himself to take the responsibility of his own conduct. As a ruler, he must be firm, reliable, and yet not dogmatic. His head is unusually high, as well as broad and full in the superior region. This indexes the strong character and the elevated tone of mind. If the true shape of his head be represented, his mind is indeed religious in tone. The reasoning brain is large, showing power to plan and think ; and the perceptives are well developed. What he sees, he sees intelligently. He observes more to gratify his intellect than his curiosity, his mind being more philosophical than scientific. He would manage business better in a wholesale than a retail way. Then he is strong in energy and industry, and is not liable to stop at trifles. His wide-awake intellect is gratified by travelling. He remembers places correctly, and is very fond of varied scenery. Large imitation enables him to display versatility of manner, and to adapt himself to various conditions and modes of living and acting. He has a high degree of taste and imagination ; is fond of amusement, mirth, and excitement ; has suavity, ease and grace of manner, and will retain a youthful, pliable, bland state of mind unto the last. Yet, as a speaker, he will talk with more rapidity than copiousness, and will use no more language than is necessary to express himself clearly. Although not cunning, he is shrewd, watchful, cautious, and mindful of consequences. He sees far ahead, and anticipates coming events.

Taking the whole organisation into account, we find a distinct and strongly-marked character such as is not often met.

L. N. FOWLER.

TRUE MORAL HERO—THE WORK OF LIFE.

BY L. N. FOWLER.

(Concluded.)

MR. HALE, an eccentric man, married his cousin. Mr. Hale's parents were cousins, Mrs. Hale's parents were near relations. There were eight children born, seven of whom were idiots, and three have died. The parent may have scrofula, while the child may have consumption or insanity. An inherited taint will continue in a family for several generations, unless it be neutralized by judicious marriage, or

until on the other hand it reaches the point of self-destruction. Certain diseases of the body and habits of the mind with their defects are very liable to be transmitted, such as consumption, scrofula, insanity, gout, defective vision, cancer, and mental defects. Defects in some moral qualities, such as deficient self-esteem, destructiveness, veneration, and causality. Tendencies to lying, theft, licentiousness, cruelty, and tyranny are transmitted.

There is very little perfect human machinery, or perfect mental action. We are all quite well clad, but some are so tightly dressed that they are crowding the life out of their bodies, dwarfing the next generation and shortening human life. Compressed waists and feet, dwarf mental action. All our surroundings are more or less imperfect, and so are we. All conditions of the body have their origin in the state of the mind. Perfection of mind cannot exist so long as it fails to control the body or have full power over it. The struggle of life is for the spirit to gain the ascendancy over the flesh, for health to predominate over disease, for right to control wrong, and counteract evil tendencies. All our surroundings need to be better than they now are in order to be perfect, or even to improve our condition. Our active ambition wants to reach the climax at once, but over-haste in work and study, strain, weaken, and hinder progress.

Nature is our best teacher : we need to know more about her laws, and be more obedient to them. Experience is our next, and by it we should be guided. We were born about as perfect as we could be under the circumstances. We are now about as good as we can be, taking into account all our surroundings. Society is worse where the environments are worse, and better where they are better. Hence, we can improve ourselves by improving our surroundings ; and secure better discipline, education, and elevation of mind.

To advance we need to understand the laws of the body and obey them ; to nourish and clothe the body without abuse ; to educate and discipline the mind according to its order and development ; to study nature more, and be more natural and less artificial ; to learn what are our hereditary tendencies to disease and sin, and strive to overcome them ; to cultivate each faculty normally and prevent its perversion. We must learn to teach, to talk, to look, to listen, to commit to memory, to remember, and to think correctly ; to live to do good as well as to get good ; to do as we wish to be done by ; to have charity for those who are in fault, remembering that we are on the same road ; to keep our engagements and be honest, and to practice what we preach. But

when we have done all these things well, we have one thing more to do.

Solomon's temple was not completed until the stone the builders rejected was placed at the head of the corner where all could see it. So man is not, until the climax powers of his nature are the crowning elements of his character, and they regulate his whole nature. Conscientiousness, hope, spirituality, veneration, and benevolence are the capsheaf faculties of man's nature, and the last to manifest themselves in the dying righteous man.

That is the true hero, who, knowing all the impediments in his way, the hereditary evils of body and mind he has to overcome, struggles manfully until he has overcome all. There he stands a model man, a monument of what true moral courage can do. He fought every step of the way up, from the bottom to the top ; he conquered every tendency to disease, and made himself strong and healthy ; he was a thorough temperance man every way ; he overcame parental bias to do evil ; he resisted temptations to go astray in a prompt and positive manner ; he educated and disciplined himself in spite of his poverty and unfavourable surroundings. There are a few such men and women in society, but there ought to be many more. When society lives up to the teachings of physiology and phrenology, and avoids unfavourable hereditary tendencies, it will be common rather than uncommon. Now all the asylums and prisons are full, a large hospital for incurables is full, and society is full of crime and disease. There are more temptations than restraints ; more popular encouragements to get off the track than to get on. Many seek pleasure at the expense of health and virtue. People marry who have a tendency to some disease, or bias to crime, and their children are fated to be worse than their parents. Many marry from purely selfish motives, and then violate the laws of nature to avoid parentage. Men disease their blood and then give it to their off-spring. They give a depraved bias to their children, and then whip them for showing it. Well might the prophet be inspired to say, "O that my people were wise, that they would consider their latter end."

If there is another world and life, we ought to take as much pride as possible in sending as good specimens of humanity as we can, and not send Pharaoh's lean, ill-favoured kine. Imagine the angels taking stock of the one hundred thousand of earth's inhabitants who pass over the bridge daily. There is ahead a Leading Spirit, a Supreme Creating Power, whom we call God, and to whom we are subject. Phrenology says so, hence we are dependent, and should be humble.

There is a future life. Man's spirit is immortal and will exist for ever. Phrenology says so. There is a spiritual communion between spirits. Phrenology says so; and we should regulate ourselves accordingly.

It is our bounden duty to improve and perfect the human race. Good people are more valuable than bad. An elevated tone of mind is better than a low tone of mind. Handsome, well-made people are more desirable than deformed and ill-looking; healthy, warm, social people are better than cold, sickly, lifeless persons. Some have natures and constitutions much more troublesome than others. Some children never know how much they are indebted to their parents for their favourable conditions. Two parents of proper size, good health and discipline, will bear children much improved over those whose parents are ill, imperfect, and demoralized. But there are two sides to this subject. Good tendencies are transmitted as well as evil. Many children have occasion to be thankful to their parents for an approach to perfection of form and beauty of face, for good blood, strong constitution, and favourable conditions for health and long life, with very few impediments to contend with. Many inherit a favourably balanced brain and nervous system that works quickly and clearly. They also have good blood, fine skin, bone and muscle, and a fine quality of organization, with a predominance of the moral and intellectual faculties. To leave this world under the control of the moral faculties, full of a faith in a higher life, is very encouraging to those who are left behind. Take, for example, the death of Solomon Foot. On the morning of his death, he desired to have the window curtain put on one side, that he might see the dome of the Capitol for the last time. While thus gazing, the twenty-third Psalm was read, and his wife knelt by his bedside and prayed. When she arose, he folded her in his arms, and as his breath became choked he said, "What! can this be death? Is it come already?" Suddenly, uplifting his hands and eyes, he exclaimed: "I see it! I see it! The gates are wide open. Beautiful! Beautiful!" and so expired. As noble an exit as can befall a man! May this be our happy lot!

THE CLAIMS OF PHRENOLOGY CRITICALLY EXAMINED.

PHRENOLOGY (A. T. Story, page 1*) is derived from two "Greek words meaning mind and discourse. It professes to

* "A Manual of Phrenology."

be a system of mental philosophy based on the physiology of the brain, and also a physiognomical system, whereby, judging from the contour of the head as shaped by the brain, character and disposition may be read."

There are two methods of investigating phenomena : the synthetical and the analytical—the former, beginning at the cause and following upward to the effect ; the latter, beginning at the effect and working down to the cause.

Phrenologists have always pursued the analytical method. L. N. Fowler, p. 167,* writes, "Pre-eminently is phrenology a science of facts. Observation discovered it, observation must perfect it, and observation is the grand instrument of its propagation." The best method of convincing a man is the inductive method founded on experiment—*i.e.*, inducing him to sit down and allow phrenology to be tested in his own person.

THE CLAIMS OF PHRENOLOGY.

The claims of phrenology, as stated by the British Phrenological Association, are five in number, with the addition of a statement of its utility, based on those claims, which we will call a sixth.

We propose to examine these claims in their order : first, by explaining what they mean ; secondly, by proving their correctness ; and thirdly, by setting out the present attitude of physiologists to phrenology, including the result of their recent researches into the motor and sensory centres of the brain, and their difficulties in discovering the whereabouts of the mind or intellect, unless they accept the teachings of phrenology.

FIRST CLAIM.

The brain is the organ and medium by means of whose functional action mental power is rendered possible and practical in man.

Explanation. (A. T. Story, p. 6 †) "There is no manifestation of mind save through the brain."

"There is a spirit in man, and the Almighty giveth him understanding." This spirit or soul in man has its seat in his brain ; and all the intelligence the soul receives from the outer world is conveyed to it by or through the brain. The brain is the workshop of the soul ; and through the brain the soul communicates the results of its working to the outer world.

(1) Negative Proofs. If not in the brain, where is the

* "The Illustrated Self-Instructor."

† "A Manual of Phrenology."

seat of the soul? Physiology and common-sense answer, Nowhere! Besides, the rest of the body has its several functions fully demonstrated and clearly defined, *e.g.*, arms, legs, and trunk. We know their uses, but the brain is a mystery to us if not the abode of the mind.

(2) Positive Proofs. Experience has proved that differences in the size and quality of the brain, and not in the size and quality of bone and muscle, constitute the different grades of mind.

Physiological attitude. This is so absolutely in favour of our first claim as to need no extended proof, for if all physiologists do not assert the fact, none of them assert anything to the contrary. Professor Huxley says, "By means employed by the anatomist we arrive at the remarkable result, that the brain is the seat of all sensation and mental action, and the primary cause of all voluntary muscular contraction."

SECOND CLAIM.

The brain is composed of many independent parts, which are perfect organs, each possessing a special mental function.

Explanation. "Independent" must be taken to mean independent as to its function; as the hand is independent of the shoulder, *i.e.*, functionally, though actually dependent upon it.

"Perfect" must be taken to mean functionally perfect, as the eye is perfect for seeing, and not dependent on the ear, though both are parts of the head, and imperfect organically. And each organ, functionally, independent, and perfect, has its own separate duty which it is well able to do and which no other organ can discharge so well, if at all.

Proofs. (L. N. Fowler, p. 60.*)

1. The exercise of different functions simultaneously, as walking, thinking, talking, remembering, &c.

2. Monomania, *i.e.*, mental derangement in one organ, and sanity in all the rest.

3. Diversity in talent, good in memory, poor in tune, &c.

4. Comparative phrenology, the perfect coincidence existing between the brain developments and the characters of animals.

Under this head comes a comparison of the races of mankind—their different cerebral developments and corresponding mental power and characteristics; also a comparison between the different heads and characteristics of men of the same race, such as Milton or Shakespeare, and ignorant, brutal men.

As our second claim is the key to the whole position, the

* "The Illustrated Self-Instructor."

rock upon which so many investigators of phrenology split their frail and unballasted barks, we have devoted more space to its consideration, and are gratified to find the physiological attitude to this claim so favourable, if not absolutely furnishing proof of its correctness.

Dr. Ferrier, in his "Functions of the Brain," 1876 edition, page 125, writes, "Up to a comparatively recent date, if we except the cumbrous cross divisions and fanciful localizations of faculties of the phrenological system, the results of experimental physiology and human pathology have been opposed to the localization of special functions in special regions of the cerebral hemispheres."

After this statement he quotes Flourens, and gives his own investigations, which go to prove the very phrenological localizations he so slightly refers to above. Proof from an avowed enemy is the most conclusive. N. R. Gowers, M.D., F.R.S., in his "Diseases of the Nervous System," 1888 edition, sums up all the latest researches on the functions of the brain (by Ferrier, Munk, Reid, Nothnagel, Hitzig, Turner, Horsley and others), commencing thus:—Vol. ii. p. 11, "Doubt was formerly entertained as to the existence of differentiation of function in different parts of the cortex (brain matter); but recent researches have established the existence of a differentiation, which has almost revolutionized cerebral physiology, and has vastly extended the range of cerebral diagnosis." He then proceeds with his summing-up, the substance of which is as follows:—"There are cerebral motor and sensory centres—*i.e.*, centres of sensation and motion, each with its separate function and duty, namely, a visual centre, an auditory centre, a tactile centre, centres of smell and taste, organic sensation, and sexual feeling." Motor centres, controlling all the limbs, joints and muscles, he shows by diagrams to be chiefly located in the centre of the head, and within two lines drawn perpendicular to the base of the skull, one an inch in front of the ear, and the other one inch behind the ear. At page 22, he ends his observations with the following striking sentence:—"It is presumed that mental processes are subserved by those parts of the brain that have no known motor or sensory function, and especially by the pre-frontal lobes" (what phrenologists call the perceptive and reflective organs). Ferrier, page 231, writes of the removal by cautery of the antero-frontal lobes as being unattended by any definite physiological result, the animals retaining their appetites and instincts, and being capable of exhibiting emotional feeling; the sensory faculties, such as sight, hearing, touch, taste and

smell, remaining unimpaired. Yet he could perceive a very decided alteration in the character and behaviour of the animals which had been selected on account of their intelligent character. After the operation, they were no longer actively interested in their surroundings. Monkeys, usually so curious, remained apathetic and dull, or dozed off to sleep ; they had lost the faculty of attentive and intelligent observation.

The above I submit to all fair-minded readers as very strong proof of the truth of phrenology, with reference to the localization of the perceptive and reasoning faculties in the frontal lobes.

He also writes of the removal by him of the occipital lobes, and of the cerebellum, without injury to the physical functions of the animal.

Ferrier, page 109, further states of the cerebellum that it " seems to be a complex arrangement of individually differentiated centres, which, in associated action, regulate the various muscular adjustments necessary to maintain equilibrium of the body."

The phrase, " complex arrangement," is not unlike the " cross divisions of the phrenologists " above-mentioned, and, though this opinion is not in accord with the old phrenological view of the functions of the cerebellum, yet it clearly proves our second claim ; so far as the cerebellum is concerned, the expression " individually differentiated centres " is identical with " many independent parts " of our second claim, scientifically put ; and what is true of the cerebellum must be true of the cerebrum, for nature, or, more properly, God, works upon comparatively and analogically the same lines.

THIRD CLAIM.

" That not only is the brain, as a whole, subject to fixed laws of growth, size, position, etc., but each of its component parts, or organs, is in like manner subject to the same laws, and that each of these organs performs its functions more or less vigorously according to its conformity thereto."

Explanation. Three propositions are set out in this claim :—

(1) The brain, as a whole, grows by fixed laws, both as to its size, weight, shape, quality, the length and depth of its convolutions, its position with regard to the ears, the plane of the face, and the junction of the head with the body.

(2) Each organ grows in the same manner under fixed laws as to its size, length, depth, sharpness or bluntness, quality, and functional power.

(3) And each organ's functional power depends upon its organic development.

Proofs. L. N. Fowler, page 10 : "The organism is in perfect correspondence with the function. Whenever nature would put forth power of function, she does so by means of power in the organ which puts it forth ; and so, of quickness, and all the functional conditions, all quickness of function is put forth by quick-acting organs, etc."

No one will deny that the brain grows, like the body, by fixed laws ; and as each member of the body may be developed by special exercise and attention, in harmony with such laws, so may each organ of the brain be similarly developed ; and no one will deny that all ability or function, of body or brain, limb or organ, corresponds exactly with the strength of the body or limb, brain or organ.

Fowler, page 10, says : "The power of the oak to stand for centuries depends on the organic nature of its trunk, roots, etc. The more solid the structure, the more powerful the function—witness the elephant for strength, the cat tribe for quickness."

It is only reasonable that development must be on the lines of law. There is no royal road to any functional power or ability, and the greater the obedience to law, the greater the development and consequent power. The muscles grow by use, so do the cerebral organs ; and as weak muscles cannot put forth great strength, so a weak organ, when undeveloped by exercise, cannot be functionally strong, or put forth its special and peculiar powers in an effective manner.

Ferrier, pages 264-5, explains the growth of volition, or will-power, in the child and lower animals, and shows that, in the child, power over the hands is first obtained, then over the legs, then over the voice, and so on ; and that the functions of the brain are developed in like manner, separately, at different times, and in different measures of power. He says, " We have thus a sensory memory and a motor memory ; sensory ideas and motor ideas ; sensory ideas being revived sensations, motor ideas being revived or ideal movements."

FOURTH CLAIM.

" That, consequently, if the development of the cerebral organs has not been complete, the functional power of such organs will be imperfect."

This is more of a corollary, or result of the foregoing three claims, and may be illustrated as follows : if the organ or centre of causality, through which we reason, is imperfectly developed, its functional power will be small, and the ability to reason will, in exact proportion, be small and weak. Proof is not needed. A physically undeveloped youth cannot

perform advanced gymnastic feats ; an untrained mechanic cannot successfully achieve the higher mechanical arts.

Ferrier, page 109, writing of the functions of the cerebellum, says, "We would therefore expect that the cerebellum would be developed in proportion to the variety and complexity of the muscular activity of which the animal was capable, a relation which is fully borne out by the facts of comparative anatomy." This statement proves our point inversely, by showing that the greater the variety and number of the muscular activities practised by the animal, the greater the development of the cerebellum and the functional power of that organ.

FIFTH CLAIM.

"That the exterior of the skull affords to the properly qualified examiner such positive indication of the position, size and degree of functional power of the mental organs, as to admit of an accurate estimate of the moral dispositions, and the intellectual capacities of all persons with healthy brains."

Explanation. (A. T. Story, page 21). "The brain enclosed in its three membranes quite fills the interior of the skull, so that a plaster cast of the interior exactly represents the brain covered by the dura mater, or innermost covering."

That is, no part of the skull is hollow (except the frontal sinus in some persons) and no part is much thicker than any other. This assertion requires modification, as all "properly qualified examiners" know. The sutures, or interlaced joinings of the bones of the skull, are an exception to this rule, as also the bony protuberances known as the frontal sinus (over the root of the nose), the mastoid process (behind the ear), and the occipital spine (where the spinal column joins the head). At the temples and the occipital fossæ, the skull is thinner, yet, as Dr. Combe says (page 123, 1843 edition), "The departure from perfect parallelism between the outside and inside of the skull, where it occurs, is limited to a line, one-tenth or one-eighth of an inch, according to the age and health of the individual." Sir Charles Bell observes that "the bones of the head are moulded to the brain ; and the peculiar shapes of the bones of the head are determined by the original peculiarity in the shape of the brain."

Ferrier, page 308, has several pages devoted to the relations of the convolutions of the brain to the skull, and states that all the sutures can be detected by the hand. He also gives rules for the dividing of the skull into ten well-defined areas, or regions, and for the finding of those areas. He then proceeds to point out that certain convolutions of the brain

always lie under certain parts of the skull, and thus, through handling the skull, one can find the positions of all the various portions of the brain as accurately as if one saw the brain without its covering ; and quite recently Turner, Reid, and Horsley have confirmed and extended this view.

From these premises, we may argue that we have a right to conclude that if the brain be composed of separate organs, each with its separate function, that these several organs can be distinguished from the outside of the head, that the state of development of an organ is the measure of its power, and that development is the result of use and exercise ; then we can, with tolerable accuracy, state the habits, likes and dislikes, fitness or unfitness for a given position in life of any individual who may submit his head to our examination.

SIXTH CLAIM.

"Phrenology is of vast importance as an aid in the economy of life, both as a means to the proper development of men and women, and as an aid to the right application of their talents."

If the five preceding claims of phrenology have been fully proved, or are capable of being substantiated (in more able hands) then our sixth must be admitted without hesitation.

For if a competent phrenologist be able to point out a man's deficiencies, and their nature ; his faults, their cause and cure ; his capabilities, and how best to use them ; the possibilities within his reach in every phase of life, and the pitfalls that lie in his path, then phrenology is of vast importance in the economy of life ; assists to point out the best means for the complete development of the human race, and teaches mankind what they are best fitted to do, how their lives may be most successful, most happy, most useful, and consequently most pleasing, to their Creator.

SUMMARY OF PHYSIOLOGICAL RESEARCHES AND THE SUPPORT THEY GIVE TO PHRENOLOGY.

(1) There are brain-centres governing sensation and motion, and, reasoning by analogy and comparative anatomy, there are brain-centres, or organs for every faculty, propensity, or sentiment, each with its special power and duty.

(2) The intellect and the affections elude the physiologists, but the latter admit that those portions of the brain in which they can detect no centres, may and must contain the centres of thought and feeling ; and the fact that the monkey lives in a dazed condition without its frontal and occipital lobes—the seats respectively, according to phrenology, of thought and feeling—supports our views.

(3) The centres are more complex in texture, and more powerful in function, according to the amount of use the animal makes of that part of its frame which they control. This maintains our contention that each organ develops by use, and thus men and women may, when properly instructed, increase their mental power, their self-control, and mechanical skill.

(4) The objections advanced by physiologists are chiefly directed against the ignorant and unqualified phrenologist, who persists in feeling for "bumps," and making shots at a person's character, because of certain protuberances that manifest themselves in his skull. There is one objection, however, which we are bound to consider ; namely, the functions of the cerebellum. Drs. Gall and Combe, from experiment and observation, concluded that the cerebellum was the seat of the sexual feeling. The modern physiologist says it is the centre of physical equilibrium, and enables an animal to maintain its balance ; but this centre he discovers only in the middle lobe of the cerebellum, the two outside lobes being still a mystery to him. May not the sexual feeling lie in the outside lobes of the cerebellum ?

Again, Ferrier (p. 198) by experiment with electrodes in the immediate neighbourhood of the cerebellum at its junction with the cerebrum excited amativeness ; so that though physiologically we may be wrong, yet practically we are right, when we say of a person well-developed in the region of the cerebellum that he or she has amativeness "large."

E. WESTMORLAND.

HOW FAR CAN WE GO ?

IT is well that we sometimes consider our position, marshal our forces, and endeavour to see how far we can go, because we not only have to meet opponents who ridicule phrenology, but we sometimes have too much claimed for this science. As ridicule is not argument, so claiming too much is not a wise thing. Anatomists and physiologists hold by no means the same opinion of the brain and its functions that they once did. In the days of those grand men whom we are proud to follow—Gall, Spurzheim, and the Combés—it was no unusual thing to hear that the brain was not the organ of the mind. Lord Jeffrey, who edited the *Edinburgh Review*, asserted in that periodical that the brain had nothing whatever to do with the mind. No man would stake his reputation upon such an assertion to-day. The first principle of phrenology—that the

brain is the chief organ of the mind—is universally acknowledged.

We go farther, and say that the brain is a congeries of organs. Facts everywhere prove this to be true, and the antagonists of phrenology must prove it false. Prejudice, however, so blinds their judgment that they appear to be unable to discern what the principles of phrenology are.'

Take, for instance, Dr. C. Bastian's "Brain as an Organ of Mind." He comes very near to the science which he treats so contemptuously, and is actually following Gall and Spurzheim, whom he treats as deluded or ignorant men. In speaking of localisation of intellect, he says, " Yet that every higher intellectual and moral process—just as much as every lower sensorial or perceptive process—involves the activity of certain related cell and fibre network in the cerebral cortex, and is absolutely dependent upon the functional activity of such networks, the writer firmly believes." What is this but phrenological ?

Again, "Looked at from the sides, the brain presents certain obvious differences when we compare such simple forms as that of the Hottentot, Venus, and the Bushwoman, or even that of Krebs the artizan, with one of the highly-evolved organs pertaining to a man of great and subtle intellect such as Gauss. One of the most notable characteristics of the brain of Gauss is to be found in the great development of the frontal lobes."

Will Bastian explain to us why the frontal lobes were so well developed in Gauss, and therefore so beautifully prove the "exploded theories" of Gall to be true ?

Let Bastian again refute himself. He says, " If we are to regard the brain as the principal organ of mind, and to look upon each mental operation as one of the manifestations of its functional activity, all analogy and even probability would point to the conclusion that a definite order must be observed, and that identical mental operations will always be associated with the fundamental activity of identical tracts of nerve fibres and cells in the brain and its dependencies."

Dr. Bastian moreover believes in the centre for speech, for he says, " By reason of the observations which have accumulated during the last eighteen years, it is now admitted by most of those who are best entitled to judge, that Broca's localisation is in a certain sense correct, and that in the instance of real typical aphasia the lesion is in a large majority of cases found to involve the posterior part of the third frontal gyrus on the left side, or else the immediately subjacent white

substance intervening between this convolution and the corpus striatum."

Surely Bastian knows not that his opinions are phrenological!

T. Ribot, in his "Diseases of Memory," remarks : "(1) Every recollection has its seat in a definite and determinate portion of the encephalon ; (2) The encephalon and the cerebral hemispheres are made up of a number of totally differentiated organs, each having its special function to perform while remaining in the most intimate relations with its fellows."

Speaking of the inequalities of memories, he says, "Think, for instance, of artists like Horace Vernet and Gustave Doré painting a portrait from memory ; of chess-players able to carry on one or several games in the mind ; of lightning calculators, like Zerah Colburn, who 'see the figures before their eyes' ; of the man spoken of by Lewes, who, after walking half-a-mile through a crowded street, was able to name all the shops he had passed in relative order ; of Mozart, writing down the *Miserere* in the Sistine Chapel after having heard it twice."

J. Luys says, "There are in the human brain inequalities very clearly distinguished as regards the part devoted to each particular order of sensorial impressions." "In reality, dreams are nothing but the persistent vibration of certain groups of cells in a condition of erethism, when the greater number of their fellows are already plunged into the collapse of sleep." Is there any antagonism to phrenology here? We think they are in perfect harmony therewith.

Dr. Maudsley, in his excellent work "Body and Brain," is very phrenological in the following remarks :—"Multitudes of human beings come into the world weighed with a destiny against which they have neither the will nor the power to contend ; they are the step-children of Nature, and groan under the worst of all tyrannies—the tyranny of a bad organisation. Men differ indeed in the fundamental characters of their minds as they do in the features of their countenances, or in the habits of their bodies ; and between those who are born with the potentiality of a full and complete mental development under favourable circumstances, and those who are born with an innate incapacity of mental development under any circumstances, there exist every gradation. What teaching could ever raise the congenital idiot to the common level of human intelligence?" Again, "Summing up, as it were, in itself the leading forms of the vertebrate type, there is truly a brute brain within the man's ;

and when the latter stops short of its characteristic development as human—when it remains arrested at or below the level of an orang's brain, it may be presumed that it will manifest its most primitive functions, and no higher functions."

The antagonists of phrenology have retreated so far that they now not only admit that the brain is the chief organ of the mind, and that analogy and anatomy prove that parts of the brain have distinct functions, but even admit that the posterior part of the third frontal convolution has something to do with the memory of words, and the "gustatory centre" of Ferrier, when excited, produces "movements of the lips, tongue, pouches and jaws," agreeing with the organ of alimentiveness.

It is impossible however by Ferrier's methods to discover intellectual and moral powers, and we may go so far as to assert that physiologists and anatomists will, at no distant time, observe the form of the head as phrenologists do.

We can be positive as to the principles of phrenology, but can we go so far as to be positive in the details?

Harm has undoubtedly been done by claiming too much. Facts will not warrant us in saying that a man has just so much and no more of a certain organ. We can give the general character and power, but to give a definite marking to each organ attempting to show the exact relative power to other organs, is going too far. Registers, though useful in a degree, and laudable attempts to do impossibilities, are very faulty, however carefully marked, being full of contradictions. A short written statement carefully worked out is worth a great deal more to those who consult phrenology, and there is not the latitude given for criticism that is given in a register. Character does not depend upon the size of any one organ, but the combination of organs.

For instance, very large cautiousness is generally marked seven in the registers, and the person is described as irresolute, timid, &c. Combativeness might be very large in the same person, and he is described as bold, courageous, &c. What a contradiction! Therefore we cannot go so far.

Can we give definite boundaries to the organs, or say that an organ reaches just so far? No, we cannot. No doubt, phrenology would have made greater progress had the names merely been put on the busts in their approximate localities, and the marks left entirely out. Those boundaries are not scientific. Take the older busts, and self-esteem is marked as occupying the space between firmness and inhabitiveness. Now we have continuity between self-esteem and inhabitiveness. So with other organs. In busts generally, we have

sublimity and ideality occupying the whole of the space between hope and acquisitiveness and spirituality and constructiveness. Mr. Morgan, however, locates graveness, gayness, and awe below ideality and sublimity.

Graveness is described as giving "gravity of deportment and expression, and a preference for grave surroundings characterise the individual."

Gayness : "It adapts to the lively and gay. It presides at marriage feasts, and sings the song of rejoicing at births."

Awe : "Persons so constituted manifest an unusual inclination to behold the awful grandeur of nature, and they describe it more graphically and poetically than others in whom the sign is smaller."

Phrenology is not perfect yet, and we cannot go so far as to give exact boundaries to the organs. Ridicule is brought on the science by so doing. I do not say that I agree with Mr. Morgan's "organs." My mind is open to conviction on the point, and I think they are worthy the attention of all phrenologists. My point is, that, if Mr. Morgan's "organs" exist, they help us to see the folly of putting boundary lines to the organs.

Can phrenology point out the religious creed of a person, or dovetail with what is commonly called conversion? In some phrenological works attempts are made in that way. To attempt such things is merely going beyond fact, and following a fancy.

As to conversion, there are many opinions as to what it is. Some will tell you that the baptism of an infant is conversion. Others believe that it is instantaneous, while others believe it to be a life work. We must leave theologians to settle these matters in their quarrels. Phrenology cannot side with one theological opinion or another. Scientific facts should never be deformed to suit religious fancies. George Combe never went so far as to identify phrenology with any religious dogma; neither should we.

Can we tell the politics of persons by the form of the head? It is said that a Conservative has large self-esteem, approbateness, firmness, cautiousness, combativeness, and destructiveness, and a Liberal, large benevolence, conscientiousness, firmness, and friendship, with intellectual capacity. The above descriptions show political bias, and are not phrenological.

Phrenology should never be dragged down to party politics. The mass of men side with this or that political party by reason of their training, surroundings, and the advantages to be derived therefrom, and not because of the form of their

head. It is believed by many that phrenology can point out the man or woman suitable for husband or wife. Is it so ? I think it is carrying it too far. How do we know whether such a woman will suit such a man, or such a man, such a woman ? People cannot make love and marry by proxy. Suppose, however, that phrenology could be positive on the point, such a plan would be very unworkable. A marriage chart is marked, and the gentleman pointed out should have a medium vital temperament, a strong motive, a medium mental, should be tall and bony, with a large head, medium weight, dark complexion, dark hair and eyes, medium social organs, strong energy, self-reliance, prudence, economy, cheerfulness, and practical talent, with medium reasoning powers, and a full moral and religious brain. How is the lady to know where such an one is to be found, and how will she know whether he has these points, and, above all, whether he is willing to marry her ? We might wander thus the world over in search of a husband or wife, and never find one. Phrenology will aid us in understanding the characters of lovers and husbands, but selection should be left to the old-fashioned way, for there is nothing like it after all. Clients may ask advice, but they will follow their own way.

Can we lay down definite measurements which will be applicable to all heads ? We are told that the height of the head from the opening of the ear (measured by calipers) should be the same as the breadth over the ears ; that the distance from ear to ear backwards should equal the distance from ear to ear forwards over the perceptives, and that the measurement from the ear around causality should equal that around continuity. Can we go so far ? No. Such measurements are not scientific. It is well-known that the ear does not always bear a relative relation to the frontal lobe. Sometimes the frontal lobe does not extend to the opening of the ear, and at other times beyond it. Hence, this method of measurement is misleading. Mere height of head from the ear proves nothing. A murderer's head may be six inches wide just above the ear, and may measure six inches in height by the calipers. Some heads show very large moral organs, but are no higher than others with rather small moral organs. The ear is an inch, and even two inches, lower down in some heads than others, by reason of the depth of the basilar region of the brain. In order to have trustworthy measurements they must be more definite. We must consider the relative size between the upper and lower regions. Measurements are of great importance when taken from the right centres.

The head of Eustache, the benevolent negro, was the same height from the opening of the ear as that of Palmer, the poisoner, but the depth of the basilar region of Eustache measures only 2 5-10 inches, while Palmer's is 4 inches. The head of Thurtell (murderer) was high, owing to the great depth of the basilar region ; but the depth of the moral brain was only 1 5-10 inches. We therefore see how fallacious as a guide is the mere height of head from the ear.

The anatomy of the skull should be well-known, and its relation to the lobes of the brain. A better system of teaching phrenology is needed.

We sometimes see phrenologists pointing to a skull, saying, "Here is veneration," or, "Here is benevolence." Such a method is neither phrenological nor scientific. The organs are in the brain beneath the skull. The anatomy of the brain should be studied and the relation of the lobes and convolutions to the skull, and this should be the first thing taught. A scientific method of teaching phrenology is needed, not only because it is the only way to win over the scientific world, but because we are then able to meet opponents on their own ground. It may be urged that Gall did not discover phrenology by reason of anatomy. Quite true, but he studied anatomy to see its harmony with phrenology.

Phrenology will never make the headway it deserves to do when too much is claimed for it, and will never be received by the scientific world till we have scientific phrenologists.

Drs. Ferrier, Bastian, and others, are not far from being phrenologists, and perhaps one day they may muster sufficient courage to declare that Gall and Spurzheim were discoverers of facts which point to the direction of great things which will yet work wonders in the world, helping men to know themselves and others.

CHARLES WILLIAM ABLETT.

THE SCIENCE OF SEX.*

THE above title would in some respects perhaps, describe more accurately than their own the valuable treatise of Professor Geddes and Mr. J. Arthur Thomson, which begins the new "Contemporary Science Series," edited by Mr. Havelock Ellis, and published by Mr. Walter Scott. The

* "The Evolution of Sex." By Professor Patrick Geddes and J. Arthur Thomson. London : Walter Scott.

"Evolution of Sex" alone is, indeed, a problem destined to occupy many treatises : but while grappling closely and capably with that, Messrs. Geddes and Thomson further discuss a variety of related issues, as, the Darwinian doctrine of sexual selection, the processes of growth and reproduction, and the ethical aspects of the case, including the population question. The result is a work which, for range and grasp, mastery of material, originality, and incisiveness of style and treatment, is not readily to be matched in the long list of modern books designed more or less to popularise science. A common weakness of these is the omission to take the reader, as it were, into the scientist's confidence, to let him see something of the controversies, the uncertainties, the gropings, and the fallacies which have preceded, or still hamper, the study in hand ; the assumption being that the average reader is like a schoolboy, not to be disturbed with doubts and open questions, but to be told only what he can trust to. But indeed it takes an original man to see and tell what the state of a science really is at a given moment ; and the originality manifested in Professor Geddes' previous scientific treatises—not to mention those on art and economics—is well employed in condensing the data and the disputations of recent science in regard to the fundamental problems of biology.

It will doubtless discredit the book in the eyes of some, to start with, that in its first two chapters it challenges Darwin's doctrine of sexual selection. Darwinism is now old enough to have passed from the stage of blasphemy to that of dogma ; and there will always be devotees who, holding bodies of doctrine by faith rather than by reason, resent the inevitable modifications of time. It is safe to say, however, that Darwin's teaching on this one point must give way—is daily giving way—to criticism. He sought, it will be remembered, to explain the beauty of many male organisms, birds in particular, by a tendency on the part of the plain females to yield themselves most readily to the males of beautiful colour, plumage, &c. ; assuming that birds had already in large part developed the æsthetic tastes of the subtle biped to whom *Homo sapiens* proposes. The argument was that the most beautiful males would thus have most offspring, and crowd out the plain ones—a somewhat imaginative thesis, when one thinks of it, in a world where, with so many restrictions on the reproductive instinct, ugly men have so little difficulty in finding wives. Darwin's ingenious theory was met by the no less ingenious one of Wallace, to the effect that originally—whatever period that might be—males and females were alike brilliant ; but that brilliancy in the females was killed

out by reason of its exposing them to extra risks from birds and beasts of prey during incubation ; the sex being thus left, in its plainness, with only the very vicarious, not to say precarious, consolation of the splendour of the male—whose fine colours, be it observed, did not cause *him* any fatal inconvenience in his relations with the foxes and eagles. Despite the obvious, though ignored, difficulty on this last head, there was a certain old-world symmetry about Darwin's and Wallace's rival explanations, which makes one loth to shelve them with the teleology on which they innovated. But if the candid reader will study the work of Messrs. Geddes and Thomson, not merely in the opening chapters but throughout, he will see cause to acquiesce in the authors' conclusion that the principle of sexual selection, and that of the elimination of female brilliancy, equally fail to meet the case ; and that the dyes and the plumage of male birds are just, like the mane of the lion, the beard of the man, and the thickness of neck of bull and stallion, the result of their maleness, of the overplus of the kind of energy which belongs to the male constitution. Their beauty is all on fours with their strength, which would ensure them offspring apart from other attractions—as may be gathered from a study of the breeding of seals, one of the most interesting scenes in the drama of organic life. Thus we conclude that our beards are not the result of women refusing in the distant past to marry smooth-faced men. There were generally spare women enough who would put up with that, even if—what is not quite certain—they did not always like it. The beard is simply a part of the male organism, an outward expression of male physiological processes, which will subsist—mitigated only by the razor—even if ladies should offer a premium for beardlessness, just as the special physiological expressions of sex in women are totally independent of the æsthetic prepossessions of men. The peacock's beauty of colour, one is inclined to say, is merely a fluke, an accidental gain to humanity, but probably a matter of substantial indifference (if not of domestic contempt) to the peahen. But this brings us to the great æsthetic question—necessarily left alone by Messrs. Geddes and Thomson—of the relativity of beauty, of the dependence of our notions as to that on the phenomena of our environment ; and this is matter for a whole treatise. Suffice it here to sum up that sexual selection, though it may to some extent modify both male and female characteristics, is only a very subordinate influence, and not at all an explanation of them.

The whole of the authors' criticism on Darwin is perhaps not so decisive as that on the sexual selection theory, which

may have been put in the front with something of the instinct of controversy, since its proper place would seem rather to be at the end of the book. In the other chapters, of which, in themselves, the casting and arrangement are admirably lucid, there are occasional shots at the habit of explaining a characteristic in terms of its advantage, and as the survival or selection out of an indefinite number of possible variations. But we are not clear that Messrs. Geddes and Thomson succeed in discrediting the philosophic assumption of indefinite possibility of variation, or that they are absolutely fair in their attitude towards Darwin's treatment of variation. To be sure, as soon as one masters Darwin's principle, one sees that a law of variation is the next desideratum ; but when we consider what a jungle of unscientific prejudice and canonised ignorance Darwin had to cut through, and what a highway he succeeded in making, it seems hard to criticise him for not doing more than he did. In any case, the concept of "indefinite" possible variation seems rather supported by the general drift of Messrs. Geddes and Thomson's fascinating exposition : for it is one thing to say that variation is to be explained by conditions and another to say that general formulas, however sound, give a "definite" view of conditions. "Indefinite" expresses reasonably enough the state of knowledge even in the present stage of research, and to get rid of the term will involve a certain amount of that metaphysic which our authors hold in such small esteem, but which can never be wholly evaded by any science that would relate itself to the whole sum of human research. It is just possible, indeed, that contempt of metaphysic now and then involves them, as so many other scientists, in oversights of expression, through making them overlook somewhat the incurable volatility of words ; and so one at times is in a difficulty as to the force of their exposition (necessarily concise) of a given disputant's position. Thus the account of Weismann's theory of heredity in the fourth chapter (§ 6) creates perplexity by making it appear, at least to the non-expert reader, that Weismann's position is only one stage from a *reductio ad absurdum*. He is represented as arguing that "individually acquired" characteristics cannot be inherited ; that is, that a man or animal can only transmit characteristics received from ancestors, not those resulting from the influences of environment. A later allusion (p. 178) emphasises this by making Weismann assert that "the several intermingling is the sole source of change affecting the species." Messrs. Geddes and Thomson may well, as they do, demur to this. It amounts to saying that a race bred from a single pair

could never permanently acquire any characteristics save those of the first two—that all differences from these are peculiar to the individuals which exhibit them, and cannot be transmitted to offspring. In that case variation of species would seem to be simply negated altogether. It is difficult for the outsider, even if he has seen something of the perversities of investigators in general and German ones in particular, to conceive that a capable reasoner should commit such an extravagance. Messrs. Geddes and Thomson, however, are in general so clear and circumspect in their exposition, that one cannot but rely on their representation, wishing only that they had repudiated Weismann with some of the confidence seen in their criticism of Darwin.

Almost the only positive objection to which the book moves the present critic, has regard to a passage in the paragraph at the top of p. 297, in connection with the population question. The treatment of this point as a whole is indeed most praiseworthy. As the authors remark, the prudery of our ordinary life "reflects itself in biology;" but it has certainly not affected their book more than was absolutely inevitable in the circumstances; and they are to be praised and thanked for taking up the population problem in the straightforward way they do. But in the passage referred to there is an expression—"rather than"—which shows small trace of practical reflection. Temperance is to be inculcated as a matter of course in this as in every other human relation; but the "rather than," in the circumstances, is extremely idle; and the whole passage seems to partake of the nature of—well, declamation. It is characteristic not merely of the attitude of biologists towards moral science, but of the condition of moral science among us in general, that a great question in conduct can thus be thought to be disposed of by a little impressive rhetoric at the fag end of a specialist treatise in biology.

It would be very unmeet, however, to end a scanty notice of Messrs. Geddes and Thomson's book with words of detraction. As a whole, it could hardly be overpraised. To point out in detail its merits, much less to discuss the many points of fresh interest that it raises, our space does not permit. Suffice it to say that the student, or the studious general reader, will here find indicated the latest research and the latest thought on the leading problems of biology, from human heredity to the self-fertilisation of plants—another of the points on which fresh research is modifying the conclusions of yesterday. And the whole mass of information is presented with a literary dexterity and vivacity, rising at times into wit, seldom met with in scientific writing. It only remains to add

a word of praise to the planner and the publisher of the series of which Messrs. Geddes and Thomson's book is the first. With perhaps a modification in the matter of paper, to secure durability of binding, the series will be, if it goes on as it has begun, one of the most valuable now current.

THE CHEMISTRY OF THOUGHT: OR, IT PAYS TO THINK.

BY JESSIE ALLEN FOWLER.

PART I.—THE THEORY.

By dissecting thought, we naturally wish to go to its source, and ascertain as much knowledge as possible about the seat of such inquiry. Were we uncertain about the work or value of cerebral matter, or if we held the old theory that the heart or other vital functions performed the office of thought, we should at once direct our attention to them. But the fact that a man deprived of his brain is disabled from consecutive thought makes us anxious to dissect thought under various points, and further, to find out why all men do not show the same mental power.

It pays to think in more than a financial way, though many only look at the coins they accumulate, rather than the quality of brain and the moral stimulus they are storing. It is possible, however, to determine with considerable accuracy the time that thought-waves pass through the mind, from the time when the first impression has been received to the moment when it can give expression of its consciousness. It is clearly a matter of brain perception as well as optic-vision. In one case a gentleman found he could see and name a white light in the twentieth of a second. To see and name a coloured picture it took him one-tenth of a second; to see and name a letter one-eighth of a second; to see and name a word one-seventh of a second. About one-half the entire reaction time is spent while the brain-changes take place, but these changes differ in different individuals as the capacity of the brain differs. It also takes the mind longer to see a rare word, or a word in a foreign language, than one in our own.

A letter can be seen more quickly than a word, but when a person has become accustomed to reading out loud the brain works quicker. Mental processes are supposed to take place slower in children, in the aged, and in the uneducated. This is the case, except in precocious children. It is possible

further to measure the time taken up in remembering, or forming a judgment, and in the association of ideas. Some who are even familiar with German need one-seventh of a second longer to name an object in that language than in English. Some need about one-quarter of a second to translate a word from German into English, and one-twentieth of a second longer to translate it from English into German. It takes about three-fifths of a second to call to mind the country in which a well-known town is situated, or the language in which a familiar author wrote.

We can think of the name of next month in half the time we need to think of the name of last month. It takes on an average one-third of a second to add numbers consisting of one digit, and half-a-second to multiply them. Experiments like these give us considerable insight into the mind. Those with large calculation, and used to reckoning, can add numbers together much quicker than others ; those familiar with literature can remember more quickly than others the characters in Shakespeare's plays.

In the cases just mentioned which have been experimented on, where only questions were asked which afforded of but one answer, the mental process was principally an act of memory through eventuality. Now it is possible to ask a question that allows of several answers, and in this case a little more time is needed. It takes longer, for instance, to mention a month when a season has been given than to say to what month a season belongs.

The mind can also be given still further liberty. For example, a quality of a substantive, of a subject, or object for a verb, can be required to be told, and it is found that it takes about one-tenth of a second longer to find a subject than to find an object. If a particular example of a class of objects has to be found, as "Thames," when "river" is given, on the average a little more than half-a-second is needed. In this case one nearly always mentions an object immediately at hand, or one identified with one's early home. Thus the mind more easily recurs either to very recent or to early associations. To find a rhyme a certain gentleman was tested, and he found it took one second to find a rhyme, and one-fifth of a second longer to find an alliteration. The time taken up in pronouncing an opinion or judgment proved to be shorter than he expected. About half-a-second is needed to estimate the length of a line, or to say which of two eminent men is considered the greater. Comparison helps a great deal in quickening a reply where more than one object is to be taken into account. Our thoughts do not come and go at random,

but one idea suggests another, and as different faculties are brought into use so different thoughts are suggested : thus, comparison thinks of words, names, and ideas that correspond or are associated with those that are named, and it is possible for us to measure the time that it takes to name common and familiar comparisons and those less so, and thus get results more definite than would be possible through mere observation.

Thus, if a thousand persons were to say what idea is suggested to them by the word "art," the result might be so classified that both the nature of the association and the time it occupies would throw much light on the way people usually think. Such experiments are useful in studying the development of a child's mind ; they help us to understand the difference in thought brought about by various methods of education by testing various faculties, and in many ways they put the facts of mind into greater order and under a greater law of comprehension.

PART II.—THE PRACTICAL ILLUSTRATIONS.

Mr. Maudsley used to say that there was a right and a wrong way of doing things, and that it paid to think which was the right way of doing work at the commencement. In other words, when a man wants to go from London to Greenwich, he should not go round by Inverness. Maudsley further considered no man a thorough mechanic unless he could cut a plank with a gimlet and bore a hole with a saw. High-class workmanship or technical knowledge was in his hands quite a science. Every piece of work was subject to the soundest philosophical principles, as applied to the use and treatment of materials. It was this that gave such a charm of enjoyment to his dealing with tools and materials. He loved this sort of work for its own sake, far more than for its pecuniary results. Thus we find that the grand result to a man who gives thoughtful practice to his work is brought about by his power of seeing clearly before he begins what to avoid and what to select, or what to do and what not to do, what faculties to encourage, and what to restrain.

All the faculties claim that it is worth our while to cultivate each one in particular. Conscientiousness says, "It pays to think through its influence." It tells the following story, "Two country lads came at an early hour to a market town, and arranging their little stands, sat down to wait for customers. One was furnished with fruit and vegetables of the boy's own cultivation, and the other was supplied with lobsters and fish. The market hours passed along, and each little merchant saw with pleasure his stores steadily decreasing

and an equivalent in silver shining in his little money-cup. The last melon lay on Harry's stand, when a gentleman came by, and, placing his hand upon it, said, 'What a fine melon ! What do you ask for it, my boy ?' 'The melon is the last I have, sir ; and, though it looks very fair, there is an unsound spot in it,' said the boy, turning it over. 'So there is,' said the man ; 'I think I will not take it.' 'But,' he added, looking into the boy's fine, open countenance, 'is it very business-like to point out the defects of fruit to your customers ?' 'It is better than being dishonest,' said the boy modestly. 'You are right, little fellow, always remember that principle, and you will find favour with God and man also. I shall remember your stand in the future.' 'Are those lobsters fresh ?' he continued, turning to Ben Williams. 'Yes, sir, fresh this morning ; I caught them myself,' was the reply ; and, a purchase being made, the gentleman went away. 'Harry, what a fool you were to show the gentleman that spot on the melon ; now you can take it home for your pains, or throw it away. How much wiser is he about those lobsters I caught yesterday ? Sold them for the same price as I did the fresh ones ! He would never have looked at the melon until he had gone away.' 'Ben, I wouldn't tell a lie, or act one either, for twice what I have earned this morning. Besides, I shall be better off in the end, for I have gained a customer, and you have lost one.'" A man who, by lying and cheating, drives away one customer a day will, in a little while, have very few left, and they will soon find him out and leave him.

It pays in more than a financial way to think through the faculty of conscientiousness.

"It pays to think how you can use me more," says mirthfulness. "I ought to be exercised daily, for are there not too many sighs in the world ?" Is there not too much beefsteak, and too little gravy for salutary digestion in the every-day consumption of brain food ? Is there enough spice in some characters to season the standing dish of drudgery ? Is there not a great service in a chaste laugh, and its relation to physical comfort noteworthy ?

Our emotions are the playthings of our surroundings, and the graces we would cultivate can never be perfected in an atmosphere that is not cordial. The nightmare of disaster is ever disturbing new endeavours and cherished ventures, and if it is to be dispelled, the handiest helper is the sunshine of mirth.

To one who is in the maelstrom of cares, or who is a galley-slave in the struggle to exist, there is no force that can sustain as broad humour.

"Music has a power to lighten loads, to relax bows, but a 'side-shaker' is often more salutary to the weary and perplexed," continued mirthfulness. Yes, a mouthful of advice, seriously given, is a blessing sometimes ; but a funny story, or a neat pun, is oil to the machinery of life, and medicine to the sick. The mind that is lost to every appeal save the requisitions of his vocation needs to be roused out of his lethargy before he becomes morbidly lost. It is said of Lincoln that his indulgence in laughing and dry satirizing was a physical necessity ; that the responsibilities of his policy during the war would have chafed him to despair, had he not repeatedly laughed away his fears, or stilled his forebodings with funny exuberances. Thus we think it pays mind and body to think of more methods by which to oil the wheels of life, clogged with care and anxiety, through the faculty of mirthfulness.

"Especially does it pay to think," wise mothers say, how to make more amusement for their children.

Some parents seem utterly incapable of amusing their little children. They can cook for them, sew for them, take care of them when they are sick, but have no faculty for making them happy. The little people fret and mope because the atmosphere around them is so work-a-day, so dull, so devoid of the imaginative element upon which they thrive. Among the rich, as well as among the poor, they are often forlorn, because they are in a grown-up world : there should be a little more thought and stooping of parents to their small estate. See how heartily they will respond to the crudest effort for their entertainment ! An impromptu concert half-an-hour before bed-time, a penny-reading entertainment, including recitations and readings from favourite authors, will add much to the improvement of child-mind and child-character. It pays a mother to think how she can make them believe that they are helping, and working off their destructiveness and combativeness. With tiny brooms they can sweep ; they can dust, and wash a bit of kitchen paint—only let the mother carry on the work as if it were play. By thus becoming a part of the child-life of their little ones, mothers can gain a real influence attainable in no other way. The child will be guided by the one who is in sympathy with him.

"It pays to think :" this argument, we say, applies to the poorest workman, office-boy, official of State, or man in any department of labour, be the work of a mental or physical character. Here is a striking instance of the extent to which thought in machinery was carried in the tin industry.

Every one knows that the cans are manufactured by machinery. One of the machines used in the process solders the longitudinal seams of the cans at the rate of fifty a minute—the cans rushing along in a continuous stream. Now, of course, a drop or two of solder is left on the can. The drop on the outside can be easily cleared away, but it is not so easy to secure the drop left on the inside. It would not do, of course, to retard the speed of the work—better waste the drop ; it is only a trifle, anyhow, and, to nine hundred and ninety-nine men in a thousand, would not seem worth a minute's attention. The thousandth man worked for a firm using one of these machines, and he set about devising an ingenious arrangement for wiping the inside of the can, thereby saving that drop of solder, and leaving none to come in contact with the contents of the can. He was encouraged by his employers to patent his invention, he did so, and has already received several thousands of dollars in royalties for its use. As the machine solders 30,000 cans a day, the solder saved by his thought amounted to about \$15, or £3, a day. Thus, through the combined exercise of causality and constructiveness, this man not only served his own interests, but saved the firm a yearly expenditure of over £900. And so we might continue our illustrations to some length.

THE ANATOMICAL OBJECTIONS TO PHRENOLOGY CONSIDERED AND ANSWERED.

THE science of phrenology, like most of the other sciences in their early stages, has, ever since its first discovery and introduction, been the subject of ridicule and attack. The ridicule has generally been launched at it by those to whom the theory as a whole seemed preposterous and absurd, but who never took the trouble to investigate it, and therefore could not raise definite and specific objections. The attacks upon the system have usually been made by anatomists and medical men, who have brought forward various facts and instances as deathblows to phrenology ; but in many cases these facts, viewed in an impartial and scientific light, have served rather to confirm than to refute the theories and conclusions of the phrenologist.

One of the oldest and most frequently reiterated objections to the science is the varying thickness of the skull in different individuals, and also of different parts of the skull in the same individual. That the skull does vary in thickness is a well-

known and undisputed fact, but as a rule it is by no means difficult to ascertain its thickness with sufficient accuracy for all practical purposes. The amount and quality of the osseous system, or bony framework of the body, considered in conjunction with temperamental conditions, will usually give a very fair idea of the weight and structure of the skull. Thus, a person with small, slender bones, will have a skull correspondingly thin, particularly if the mental temperament predominates ; while a motive temperament, with a large-boned and loosely-knit frame, will indicate an equally thick and heavy condition of the skull bones.

With regard to the inequalities of the different parts of the same head, as their localities do not vary in separate individuals, they present but slight obstacles to ascertaining the contour of the brain ; there is always a thickness at the ridge of the frontal bone, and at the transverse ridge of the occipital, and parts of the temporal bones are thinner than the rest of the skull. The sutures, too, sometimes cause a narrow prominent ridge at the juncture of the bones, but it is too narrow to be easily mistaken for cerebral development ; the lambdoidal is the only suture in which this usually occurs, though in persons with strong bones it sometimes affects the others also. The phrenologist, in examining heads, bears in mind these variations, and makes allowance for them in his estimate of character.

Great stress has been laid by the opponents of phrenology on the difficulty which the frontal sinus presents to estimating with any degree of accuracy the amount of brain immediately above the nose, where some of the perceptive organs are located. It is a cavity between the two tables of the skull, formed by the inner one sinking in, or the outer swelling out a little, and is found in most adults, though its size varies considerably in different individuals. It is acknowledged by phrenologists to be a difficulty, but in proportion as the structure of the skull and the physiology of the whole frame are understood, the difficulty will become less. Fairly accurate conclusions as to its size may be drawn by paying particular attention to the amount and quality of the osseous system of the body, the temperament, and general quality of organization. The kind of voice, too, is some guide to determining its size, as it acts as a resonating chamber, being connected with the pharynx, which in its turn communicates with the larynx ; the larger the sinus is, the deeper the voice will be, a clear, sharp, and shrill voice indicating that it is small. Should it, however, be deemed an insuperable objection, it only interferes with a few organs, viz., individuality, locality,

form, size, and weight, occasionally extending to colour and order.

One exceedingly trifling objection to phrenology has been raised which, were it not advanced by so skilful an anatomist as Dr. Bastian, would be scarcely worthy of notice. Speaking of the constitution and boundaries of the organs, he says, "It need scarcely be said at the present day, that no such divisions of the brain have any real existence ; and if the convoluted surface of the organ itself presents no such divisions as are to be seen on a phrenological cast, by which the several supposed organs could be marked off from one another, it needs little anatomical knowledge to imagine how much more impossible it must be to divine such boundaries through the skull and its integuments." In making such a statement, Dr. Bastian seems to think that phrenologists look for little furrows on the skull, to divide the organs and to assist their memories ; if he had had a little more practical knowledge of the system, he would have seen how futile such an argument is against it. Brown-Sequard seems to agree with him when he says, "Motor or other centres, as commonly conceived, that is to say, as agglomerations of cells having one and the same function, and which form a more or less definitely limited mass, do not exist." This of course applies more to motor centres than to phrenological organs, but the latter may certainly come under the head of "agglomerations of cells, having one and the same function."

Bastian also brings forward the following objection with regard to the organ of philoprogenitiveness. He says ("Brain as an Organ of Mind," p. 519), "If we take the organ of 'philoprogenitiveness,' for instance, whose assigned situation at the back of the head may be seen in any phrenological bust, we find that it corresponds with a bony prominence, which varies greatly in thickness in different individuals, whilst internally it corresponds to the point of union of four great venous sinuses, and within these as much to the tips of the occipital lobes as to a part of the upper and posterior border of the cerebellum." The bony prominence has been already mentioned ; as to the "point of union of four great venous sinuses," this only takes in a comparatively small portion of the organ, and the brain and upper part of the cerebellum touch the skull on each side of this junction ; while the nerve matter within or behind the point of union, still gives form to the skull.

The phrenological assertion that the cerebellum is the organ of amativeness has been greatly objected to by those who believe its function to be simply that of muscular co-ordination.

Granted, however, that it does regulate muscular motion, this is no proof that it does not also manifest the strength of love; a scientific phrenologist should be the last to believe that its function is solely that which practical phrenology recognizes, but observation would soon convince the most sceptical that there is a direct relation between the size of the cerebellum and (*cæteris paribus*) "amativeness." If the cerebellum could be satisfactorily proved to have nothing whatever to do with this instinct, phrenologists could still draw as correct conclusions from it, because varieties of its size always accompany, if they are not the cause of, corresponding degrees of love, and would then come under the head of "correlated variations."

With regard to the several "motor centres" which have been discovered, much observation and thought are necessary to learn how they will affect phrenological theories. Motor centres or areas have been discovered chiefly by applying electric currents to definite regions of the cortex, and by mutilating the brains of living animals. The question is—How far can we accept conclusions drawn from the motions of mutilated creatures? Recent experiments tend to show that when certain definite centres are removed, certain definite functions are lost, but when the inflammation and shock consequent on operation have subsided, the functions have been restored, though with no restoration of tissue. Ferrier himself seems to regard this as a difficulty when he says ("Functions of the Brain," p. 220), "On more detailed investigation of these forms of activity, however, the conclusion was arrived at that they were nothing more than responsive actions called into play, through the primary or acquired organisation of the nerve centres, by certain forms of peripheral stimulation, independently of any intelligent adaptation of means to ends on the part of the animal itself. From the facts of human physiology and pathology, by which alone the question can be answered, it was concluded that consciousness was inseparable from the activity of the cerebral hemispheres, and that, therefore, however much the responsive actions of the lower ganglia might resemble conscious actions, they did not come within the sphere of truly psychical phenomena. The destruction of the cerebral hemispheres, by annihilating sensation, ideation, volition, and intelligence in general, reduces the animal to the condition of a complex machine, the activity of which is the immediate or direct result of 'ento' or 'epiperipheral' stimulation. But, though the functions of the cerebrum have thus been negatively indicated, the whole mechanism of cerebral activity still remains to be investigated."

Ferrier locates his "gustatory centre" where phrenologists locate alimentiveness, thus distinctly corresponding with and bearing out their theories with regard to this organ.

The fact that part, or the whole, of one hemisphere of the cerebrum may be injured, or even wholly destroyed, without serious derangement of the mental powers, has been frequently referred to as an insuperable objection to phrenology ; but, far from being an obstacle, it is an additional witness to its truth, for the organs being dual, when one is injured or destroyed, the corresponding one in the opposite hemisphere takes up the function, without much, sometimes without any, diminution of power or activity. This fact is now generally recognised. "The brain as an organ of motion and sensation," says Ferrier, in the work before referred to, p. 426, "is a single organ composed of two halves ; the brain as an organ of ideation is a dual organ, each hemisphere complete in itself. When one hemisphere is removed or destroyed by disease, motion and sensation are abolished unilaterally, but mental operations are still capable of being carried on in their completeness through the agency of the one hemisphere. The individual who is paralyzed as to sensation and motion by disease of the opposite side of the brain (say the right) is not paralyzed mentally, for he can still feel and will and think, and intelligently comprehend with the one hemisphere. If these functions are not carried on with the same vigour as before, they at least do not appear to suffer in respect of completeness."

A careful consideration of anatomy as affecting phrenology proves that the two are not antagonistic to each other, but that in many cases one serves to confirm the other ; and, no doubt, a fuller knowledge will prove them more perfectly harmonious than they are yet seen to be by many scientists of the present day.

R. HARRISON.

BRITISH PHRENOLOGICAL ASSOCIATION.

THE following is an outline of the discussion which followed the reading of the paper by Miss Harrison on "Anatomical Objections to Phrenology," at the meeting on December 3rd. (The paper will be found in another part of the MAGAZINE.) Mr. Morell was in the chair.

Mr. Webb said : I have listened with great pleasure to the reading of Miss Harrison's paper. I consider it, as far as it goes, a very excellent paper for the ground it covers ; I consider

the quality about the best that we have had. You know that I have challenged a doctor, and endeavoured to get him on a public platform, but I cannot get him there. He shall prove that it is nonsense, or else I will prove that he has made statements that he should not have made. I have been extremely careful, weighing every word, as I cannot afford not to be able to prove what I say. Now Miss Harrison's paper is on the same lines, and I hope the lady will continue the subject. Before I have done with Dr. Wilson I think I shall have to venture to read a paper on the same subject, to show that the more phrenology is tested the truer it grows and the clearer it comes out. Much is made of Ferrier's work—his discoveries of some motor centres by magnetic operations on the brains of monkeys. The head electrified in one place, for instance, will make it wag its tail. Well, we have no tails to wag. It is marvellous, on looking well into his work, how little he has done compared with what the phrenologists by their methods had done before him. I am having two diagrams drawn, showing on one Ferrier's discoveries, and on the other the phrenological centres. All his work is in favour of phrenology, and I am not sure that he could have done even so much without a phrenological book before him. They all go on our lines. Every phrenologist should keep abreast of what is being done by these men, and be prepared with real brain and book and with casts to meet any doctor in the universe. The more I look into phrenology the grander it becomes to me.

Mr. Melville said : I have listened with great interest to the paper. Though brief, it will probably prove an incentive to many to further anatomical study. Physiology and anatomy are absolutely necessary in connection with phrenology. Respecting the motor centres, to which reference has been made, I think it an interesting fact that the centre first located—viz., language, is the same as was first discovered by Gall. That the phrenologists and physiologists should both locate language first is singular, and the locations correspond regarding paralysis. I believe that disease is the key which will open up a great deal ; and this subject of paralysis in regard to the motor centres has been one of very great interest for some of us, where paralysis has drawn up the faces. Why there should not be centres of ideation seems a strange thing. It seems a strange matter that doctors should admit centres for motor nerves and not for the sensory nerves. Physiologists have simply located motor centres. It is interesting to note that in connection with the centre which controls the leg and foot the phrenologist has located in

that region the organ of firmness and self-esteem ; and we all know that when a man is determined in speech he puts his foot down in a determined manner. There is generally a marked agreement between the motor centres and the phrenological organs.

The Chairman : I differ from the last speaker on one or two points ; and yet perhaps not so when we come to express ourselves more clearly. I think we ought to avoid statements with regard to diseased conditions, although it is quite possible that diseased conditions may help us to a certain extent in our work ; yet we must not place phrenology in any sense at the mercy of diseased conditions. Take skull thickness, for instance, and the illustrations of diseased conditions there. Further, our friend spoke of sensory nerves as having to do with mental manifestations. Sensory nerves convey impressions of sense, but not of mentality.

Mr. Owen Smith said : I do not know if we all start from the same standpoint or not. Do these men, Ferrier and Bastian, oppose phrenology because they believe it to be untrue, or for the sake of opposing it ? I think we must concede that it is extremely probable that they are as anxious for the truth as we are. I have often heard the names of these men mentioned, and I have not heard the slightest concession that either of them had any wish to prove the truth or any desire to promulgate it. I think it extremely probable that these gentlemen are as desirous as we are for the correct view of the brain: Dr. Gall began from the outside, Ferrier from the inside. Spurzheim devoted his time to anatomical observation, beginning from the outside, and these men open the brain and see the inside and the relationship between the two. It is extremely probable that the errors of Drs. Ferrier and Bastian proceed from not taking sufficient notice of the contour of the skull or the relationship of the inside and outside. I rather think this is a crucial point. It is well, when the integrity of a science is at stake, to consider the lines of demarcation. I can only think that these doctors will come right finally if they are actuated by a pure desire for truth. If phrenology is wrong, let it fall ; if right, let it stand. Longing to get hold of the truth is the great thing. Phrenology is a science, and I believe it will bear the test.

The Chairman said : I consider that when these men attack phrenology, being themselves ignorant of what they attack, they should be attacked in return. There is evidence in the criticisms that they are criticizing that which they know little about. Take, for instance, when a doctor states that phrenologists ascribe philoprogenitiveness to the cerebellum, and then

goes on to argue against phrenology ; he attacks phrenology for teaching what it does not take up. We have a right to attack such men for ignorance of the subject they are dealing with.

Mr. Hall said : In relation to the correspondence that exists between the discoveries of Ferrier, as to the situation of the organ of language, I think there is some misconception in the minds of some phrenologists. I understand that the location which the physiologists give to this particular convolution is the inferior frontal third ascending, while the convolutions which Gall and the phrenologists claim to be the location of the organ is the transverse convolution lying above the orbit of the eye, above the plate above the orbit of the eye at the back part. In the old plates, in the works of Gall, Spurzheim, and Combe, they are very clearly laid down. The relationship which exists between these two ideas is this—doctors mark the brain, or rather the casts of the brain, where this third frontal ascending convolution is, but they don't take into consideration that the transverse convolution which runs from the medial line of the skull runs right outward and joins the third frontal convolution. The phrenologist's location is very much more clear, inasmuch as this particular convolution joins to the fifth or sixth convolution which runs forward and meets just at the back of the eyebrow. In regard to the discoveries of physiologists, I have not heard, in my attendances here, any criticisms which would militate against the truth of the physiologist's observations. The objections are against the aspersions cast upon the truth of phrenology ; and it becomes those who believe they have the truth to point out where errors occur. The physiologists are divided, while phrenologists are united, on the fact of the location of particular centres in the brain for particular faculties of the mind. It is quite true that there are some phrenologists who admit more centres than others, but these are simply shades or subdivisions of generally acknowledged centres. Respecting the observation of Mr. Melville, I believe there is much truth in it. Dr. J. R. Buchanan, a man of high authority on cerebral anatomy, was of opinion that the sensory nerves, as well as the motor nerves, run entire from the centres in the skin, where they reach the skin, straight up through the spinal column until they reach their particular centre in the brain, whether of the inferior, superior, lateral or frontal surfaces ; and there may be some truth in that, when you come to consider that some of these sensory nerves number 25,000 to an inch, that there may be a great many running together in one nerve sheath ; at the same time each of these particular nerves has

an insulating medium of its own. The idea is important as establishing, at one sweep, that particular centres in the brain control particular physiological organs of the body. A while back, I came across a youth who had met with a misfortune. Another boy had fired a slug at him which struck his skull and paralyzed his arm. Why not his leg? Why did it not blind his eye? Why not affect an internal organ? The slug was taken out, and the arm recovered part of its power. Another peculiar fact: a gentleman, who had been under Professor Ferrier's treatment, stated that his disease was an obscure one, and could not be located. The patient was simply instructed as to hygienic rules. He had known another of Ferrier's patients who was paralyzed in the lower part of his body. Ferrier marked out on the skull a particular part. The skull was lifted there, and a large gathering, a sort of ulcer, was removed, and the man recovered the use of his limbs, although he became ill afterwards, and now appears to be losing power over some part of his mind. I could not find out what part of the brain was affected in consequence of the surgical operation. It proves, however, that the sensory nerves of the brain are connected with the certain parts of the brain as well as the motor nerves with certain parts of the body. Also, it proves the phrenological idea that the mind was affected in consequence of the cortical substance being excised and particular faculties injured thereby. A lady removed from home, left her children behind her. She complained to me of pain in her head, which had been there for a month or so. I asked to be allowed to show her the place, and put my hand upon philoprogenitiveness, and that was the part.

Mr. Webb said: I would like to assure Mr. Smith that, although I pity Ferrier, he must remember that all Ferrier's experiments are on rats, monkeys, pigeons, &c., and it is marvellous that in all those diagrams he gives in his books he never gives a diagram on the higher functions of the frontal brain, because he could not get a monkey to express the idea of causality, size, shape, form and colour—and he never will.

Mr. Warren said: The great difficulty with doctors seems to be with philoprogenitiveness, the occiput, mastoid process, and the perceptives. I have been talking to a doctor a great deal lately. These were his principal points. I met him upon them. He is now studying phrenology all through. He was formerly laughing at it, thinking we were on a wrong basis.

Miss Harrison said: I think Bastian is prejudiced against phrenology; but he is a skilful anatomist. I think, too, phrenologists do often bring the science into disrepute. Our

aim as an association should be to make it more of a science, that other scientists may not think it beneath their notice. Phrenologists are often at fault because of their unscientific methods. With regard to different thicknesses of the skull, there are always differences of thicknesses in the same skull, but we know where these differences are located, and we can make the necessary allowances for them ; and boundaries between the organs are not always in the same position in different heads. The organ of music is very apt to be in a different position in different heads. When an organ is large it moves the organs around it out of their regular position.

Hygienic and Home Department.

ALCOHOL FOR COLDS.

IT is a popular notion that among the things for which alcohol is unquestionably a good remedy, even if it is somewhat dangerous, is its use as a preventive of colds acquired by exposure. Believing this, many persons habitually take with them a supply of alcoholic liquor whenever they expect any possible exposure. We have known many instances in which persons who had been reformed from the habitual use of liquor have been led into the habit again, through the seductive influence of this popular error. We are glad to see that so excellent and eminent a medical authority as Dr. Johnson, of Washington, D. C., has put himself on record as opposing this dangerous error. We quote the doctor's view, in the following paragraph from a recent article from his pen on the subject of pneumonia :—

"The common belief is that potations of alcoholic liquors will stop or prevent a cold, but of all popular beliefs it is the most fallacious ; for no habit like that of intemperance so readily invites an attack of pneumonia during the continuance of cold, damp weather, attended with north and north-east winds. This is a fact not generally recognised ; but an individual who is not a drinking man has three times as good a chance to recover from an attack of pneumonia as has one who is an habitual drinker ; or, by the exciting effect of alcohol, the lungs of all drinking men are continually kept engorged with blood, far in excess of a healthy standard ; and, consequently, drinking men are never without a cough. When the lungs are in this unnatural state of engorgement, they are most apt to receive the causes of their inflammation with great readiness and fatality."

Notes and News of the Month.

WE regret to have to announce the death of Mrs. Severn, the wife of Mr. J. Milton Severn, phrenologist, of Nottingham, who died on December 10th, aged 22 years.

MR. SYDNEY PRYOR (of London) will shortly publish the first edition of a new phrenological work, under the title of "Gall, the Founder of Phrenology ; or, the Boy Wonderful." Further particulars will be published in due course.

IT was decided at the last Council Meeting of the British Phrenological Association to consider the revision of the Rules of the Association, and a Committee was appointed for the purpose. Suggestions are invited from Members, which should be received by the Hon. Secretary as soon as possible.

DR. ALICE STOCKHAM, a clever American lady who has written a book on the training of young people, has returned to Chicago after having had quite a triumphal tour in Europe. In Finland, where she was the guest of the Baroness Gripenberg, Dr. Stockham was honoured by the Women's Club of Helsingfors with a reception—the first time such an honour has been conferred on an American lady—and when she left Helsingfors the ladies of the club came in a body to see her off, each carrying a bouquet, until their departing guest looked like a walking flower garden. While in Russia Dr. Stockham had several interesting interviews with Tolstoi, who will probably translate her book into Russian. While in London she gave an account of her travels at the house of Mr. Müller, speaking with enthusiasm of the beauty and refinement of the women of Sweden and Finland.

Correspondence.

To the Editor of the PHRENOLOGICAL MAGAZINE.

For the last few years I have studied L. N. and O. S. Fowler's works, and desire to express my gratitude for the benefits personally received. I have formed a class here for the study of human nature science.

Among the students is a gentleman from Stallbridge, who is endeavouring to carry out the recommendations contained in a delineation of character, made by Mr. L. N. Fowler, last June, at Imperial Buildings.

W. H. R.

What Phrenologists are Doing.

[In sending notices for this column, correspondents will oblige by enclosing their communications in an envelope and addressing them to the office of publication of the PHRENOLOGICAL MAGAZINE. Newspaper cuttings pasted on post cards are an infringement of postal rules and subject to a fine.]

WE hear that Mr. J. F. Hubert is delivering lectures on phrenology to good audiences in the neighbourhood of Lambeth and Putney. A correspondent writes after hearing one of his lectures : "I consider his replies very happy, and his delineations particularly good."

GORDON HOUSE Y.M.C.A.—A lecture of an interesting and instructive character was delivered by Mr. F. C. Barratt, in the Gymnasium of Gordon House, on November 7th. There was a large and appreciative audience. The lecturer took as his subject "Phrenology: what is it?" After having compared phrenology with astrology and psalmistry, and pointed out the superiority which it had over both, the lecturer went on to show how brain and body work together in forming character, and concluded with giving some illustrations taken from among the audience. A hearty vote of thanks was given to Mr. Barratt, on the proposition of the Rev. J. James, seconded by Mr. Fishwick, and also to the Rev. J. James, who presided.—*Keble's Gazette.*

LECTURE ON PHRENOLOGY.—Christ Church Institute (Teddington) appears to be quite maintaining its reputation for high-class and instructive lectures as well as concerts. On Tuesday, to a very good audience, which nearly filled the large schoolroom, Professor C. W. Ablett lectured upon "Phrenology, or the methods of reading character," illustrating his remarks by a number of large diagrams of well-known heads, and also by experiments upon several persons who courageously mounted the platform for public examination. At the close of the lecture, questions were invited from the audience, several being put and ably answered. Mr. Ablett then examined publicly six members of the audience; the first to undergo this amusing but instructive ordeal being Mr. Attenborough, a gentleman well-known in the neighbourhood, but wholly unknown to the lecturer. In this, as well as in the subsequent experiments, Mr. Ablett was singularly successful in his delineation of character, his remarks being greeted with applause by the audience. On the motion of Mr. Denniford, seconded by Mr. Southwell, a hearty vote of thanks was passed to the lecturer.—*The Surrey Comet.*

Book Notices.

In the "*Education of Man and other Essays*" (London : Authors' Co-operative Publishing Company), Mr. John George Speed presents us with a spirited and original work on a subject which, in spite of all that has been and is continually being written on it, is lamentably neglected or abused. Treating many old thoughts with a fine liberality, and giving many others which, if not actually new, are clothed with all the vigour and point of novelty, he passes in review the educational advantages of reading—"the education of reading, who can estimate it?"—of writing—an item which has seldom received any recognition of the enormous part it plays, or might play, in the enlargement of the mind—of conversation, and the workings of imagination and emotion. And if immense reading, a liberal mind, and a broad culture be any recommendations for the work, Mr. Speed is surely fitted to undertake it. He has written a book at once for optimists and pessimists : for he combats the specious representations afloat anent the extreme glory of the present age ; and at the same time lends his aid in discovering the nobler and more spiritual path. He attacks in some of its more assailable points the seemingly imperforable citadel of cant. He reminds the unthinking that, despite all we have gone through, despite the achievements of these days of grace, we are still very unintellectual, still very priest-ridden, and that "corrupt and soul-destroying commercialism" is the presiding genius over all. "Let us get rid," he observes, "of the idea that education consists in the stocking of the mind with a multiplicity of facts." Or, as Emerson put it in his calm, grand way, "What we do not call education is more precious than that which we call so." He attacks on the way numerous fetishes : but, most noticeable, alas ! and most melancholy of all, the "ceaseless and senseless loquacity" permeating "not only society, but even our legislature and all our public bodies," which has roused others, and which has now just aroused Mr. Phelps, in indignant remonstrance. Nor does this make the author dull. He writes brightly, magnetically : is often indeed strikingly poetic ; and we find him every now and then launching into speculations which, in an earlier day, would have been called strange conceits. We could, however, have wished to see fewer names and quotations. They show a wide reading, as said before, but they rather overload the pages and impart somewhat of a hashed-mutton suggestion. In *Self-Esteem* Mr. Speed protests against conventional notions of modesty and self-depreciation, which he stigmatises as false and unnatural ; desiring the full recognition of a just individual importance, both by itself and by other men. "It is to re-establish the individual man on the pinnacle from which he has been pulled down that I take up my pen to write this article," writes the author, with a freshness quite delightful after his own enunciations on the want of respect paid to the opinions of that individual man by a world whose

"grandiloquent cant" is that the voice of the people is the voice of God. The third essay, on *Friendship and Love*, is an argument for recognition of the identity of the two passions—that the "mystic identity of soul and soul" are the same in each case, regardless of the limitations of sex—that if they were thus accepted it would be better for the race; and many views are given from the pioneers of thought to support the view. It protests against the common disastrous distinctions between the two; against common mere sexual notions of love; and against recognised ideas on the duties of friendship, which no one ever heeds, by the way. But why does Mr. Speed put himself out to so violently assert—what very few indeed have had the temerity to dispute—the intellectual inferiority of woman to man? Is it not a recognised thing that in mental and originative power, in imagination, in judgment, woman does not equal her mate? And surely Mr. Speed does not require to be told where woman's great power lies, of the value of her greater devotion "in a formal and creedal sense," or of the reason that ordinary women are incapacitated to be mated to the vagaries and lopsidednesses, to coin an expressive word, of great genius? Nor can we observe the alarming "undue ascendancy on the part of woman which is fast growing up." In fine we have had books of the kind before, but there was room for Mr. Speed's. It is a book that should be read; and we recommend it particularly to phrenologists and men in similar walks.

S. M.

The Man Wonderful in the House Beautiful. By Dr. Allen. (London : L. N. Fowler. Price 6/-.) This is an old subject treated in a novel and interesting way. It opens the doors and windows of the mind to important facts in physiology. The chapters on alcohol and narcotics are eminently helpful with reference to their influence on the body and brain. We bespeak for it a wide circulation.

Human Magnetism (Fowler & Wells Co., New York ; L. N. Fowler, London.) In this work Dr. Drayton, the editor of the *Phrenological Journal*, presents in a condensed and compact form all the latest theories and philosophy, together with the results of experiments made by himself and others, and it is a work the reading of which will be found especially interesting to those investigating this interesting subject, and profitable to all who would know something about "Magnetism" and its wonderful influences.

Hygiene of the Brain. By Dr. Holbrook. (London : L. N. Fowler, Imperial Buildings, Ludgate Circus, E.C. Price 6/-.) How many people would be only too glad to exchange their worn out brains for fresh, vigorous ones. Many there are who would be only too glad to

have practical hints how to patch up what is left to them of the most valuable organ they possess. Such hints we find in the pages of the above-mentioned book, where the advice of many persons of note is also given. It cannot fail to benefit, wherever it goes.

Practical Typewriting (Fowler & Wells Co., New York ; L. N. Fowler, London.) In this work, the author, Mr. Bates Torrey, has made a great advance over all previous writers, and produced a work showing, as no other book does, the capabilities of this wonderful machine, the Typewriter. Its object is to enable the operator to use the machine by the sense of touch, as a musician does the piano, or other instrument, not studying the keyboard, but simply confining the sense of sight to the reading of the matter to be written. No typewriter, whether studying or a practical writer, can afford to be without this. It contains some of the handsomest specimens of typewriting ever produced, as the author is an expert in manipulating the machine.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions :—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs ; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent ; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

C. E. D.—This lady is endowed with a generally favourable organization, is physically active, and remarkable for her earnestness of purpose. Although endowed with an enquiring and studious type of intellect, she is eminently fitted to enjoy social life, the pleasures of home life, and domestic routine. She is very fond of children, and they love to be with her, but she is likely to exact their obedience. Her mind is solicitous, watchful, ambitious ; she asks many questions, and is desirous to excel, particularly in study. She is well able to adapt herself to circumstances and people ; is strong-willed, independent, likes to work on her own lines, but is none the less affectionate. She would excel in such studies as chemistry, natural philosophy, mathematics, the theories of music, and character, and could impart successfully to others ; could also with practice succeed at that branch

of literary work known as "compilation." The whole brain is active, but she is liable to despondent and gloomy thoughts, and should guard against liver troubles which tend to their production.

M. J. W. (Natal) has a predominance of mental over physical power, though the latter is by no means deficient, and therefore well supports her brain action. She is remarkable for her love of refinement, good taste, neatness, sense of the ideal, admiration of the beautiful in every direction. She is exceedingly sincere as a friend, and particularly venerates the good and true. She can be very agreeable, yet is naturally rather reserved, and does not do her abilities full justice in the expression of her ideas or the exercise of her talents. She is naturally gifted, but is rather too despondent except when others need cheering. She is intensely fond of music and fine art; is very homely, and generally takes the serious side of thought; thinks much of the past, and is, indeed, rather too introspective; is very critical, and not easily satisfied with life in general. She has a splendid memory of faces and things seen, is a close observer, and aspires to a high state of excellence; loves finish and perfection in all things. She is exceedingly impressible and intuitive; values people for their sterling worth; is not proud, but manifests a high degree of self-respect; is more sympathetic than saving. She has a very intellectual type of head, well balanced by the moral, religious, and social elements of her nature. She lives much mentally in a world of her own. Her abilities for artistic pursuits are very prominent, but she would make an equally homely spirit as a wife and mother.

J. W. A. W. (Natal)—This is an exceedingly energetic character, and one that cannot lead other than an active life. He is quick, shrewd, penetrating, possesses great ability to see through the motives of other people; prefers to keep them working rather than talking. He usually drives through whatever work he undertakes, and is, if anything, too active and excitable. Likes to be on the move, to direct, or take a leading position. Is quick tempered, but very executive, and prefers those things which are practical and useful. He can say sharp things sometimes, defends his rights with great spirit, is very independent and determined, but equally sensitive to criticism or interference on the part of others. He can keep his own counsel, evade the question, and act with considerable diplomacy and tact. He is a clever planner and contriver, and appears to have fought his way through considerable difficulties, or to have suffered from some shock during his career. There is also some weakness about his digestive apparatus, though his muscular system indicates the possession of considerable physical strength. He should prefer outdoor to indoor occupation, is fond of exploration, a good judge of weight, size, distance, and form, but should be more orderly in detail, though he is not wanting in systematic ability. He has something of the soldier about him, but would do better in some practical business direction.

THE
Phenological Magazine.

FEBRUARY, 1890.

DR. CARL PETERS.
LEADER OF THE GERMAN EXPEDITION TO EAST AFRICA.

DR. PETERS is, if living, thirty-six years of age. The report, however, came to Europe in November last that he had met his death at the hands of the Central African tribe called the Massia. Since then the report



has been denied, and it is generally believed that the explorer will turn up alive in due course.

On the twelfth of September last he had reached the province of Malakota in which Massia is situated. At that time he had only twenty-five Somalis with him, and he knew it was dangerous for him to advance further. Last April, when Dr. Peters tried to land upon the Somali coast, the natives threatened to kill him. So strong is the objection these entertain to the presence of strangers that they are not usually trusted by English travellers. Herr Wissmann hired Somalis to act as black troops on the side of the Germans, but when he came into collision with Bushiri he was obliged to disarm them. Many experienced men declare that it was a grave error on Dr. Peters' part that he had hired Somalis as carriers at Aden. He had advanced fifty leagues beyond Vitu, taking the same route by which Dr. Junker returned from Emin Pacha.

Dr. Peters was a highly educated man, the son of a clergyman at Neuhaus, on the Elbe. He was educated at a convent school and studied history, political economy and jurisprudence at Berlin University. In 1878 he graduated as doctor, receiving the gold medal for original work in history. He then came to London to pursue his studies and while here conceived the idea of founding a Colonial Empire for Germany. In 1884 he purchased, "for a song," a vast tract of land from East African chiefs, and the treaties he made with them being recognised by the German Government, led to a German Protectorate being formed. Much blood has since been shed, and Dr. Peters found he had under-estimated the difficulties of colonisation. He was a very energetic man ; but even his friends admit that he did not understand how to treat the natives. He regarded severity as the best method, and is confessed to have made himself unpopular in Africa by the severe punishments he resorted to. His choice of the short and dangerous East coast route to Emin, instead of the longer but safer West coast route, was also characteristic of the man. Central Africa is now, for the time, left to Africans. The worst consequence of filibustering expeditions like that of Dr. Peters' is that confidence is destroyed by them and humane endeavours rendered impossible for a long time.

It will be seen from the portrait of Dr. Peters that he is very different in organization from Stanley. He has, perhaps, all his go and push, but he is lacking his caution. Cautiousness, indeed, appears to be singularly small for a man who has to run much risk, while destructiveness and combativeness are large. The portrait indicates a man with a good deal of character. Firmness and self-esteem are both large ; and these, joined to the energetic qualities already mentioned, give him a great deal of impetuosity. It would have been well if

conscientiousness had been larger. The moral brain as a whole is none too large for the executive powers. Still, the head is not a selfish one ; and he may be, and probably is, a man of generous impulses. The social brain appears to be slightly inferior. The intellect is the best part of the organization, most of the organs being fairly well represented, with the exception of order and calculation. Probably, however, the perceptive, knowing, and scientific faculties predominate in influence over the reflective and philosophical.

PHRENOLOGY AND RELIGION.

BY G. H. J. DUTTON.

"I look upon Phrenology as the guide to philosophy and the handmaid to Christianity."—HORACE MANN.

THE above opinion will be endorsed by every student of the human mind who has devoted any time to its consideration. Phrenology as a science of mind holds a unique position. There is no other system of mental philosophy that has sufficient data. Phrenologists were the first to demonstrate clearly the connexion between mind and brain. As Professor Bain wrote in *Fraser's Magazine* some years ago, "They have marshalled an array of facts in support of this position so formidable and cogent as almost to silence opposition."

"That may be," says someone. "I quite agree with the first part of Mr. Mann's sentence, but I am told that phrenology leads to fatalism and materialism, and if that is so Christianity can have nothing to do with it."

This is a fair specimen of the opposition our science meets with from well-meaning but mistaken people. Instead of building upon the solid rock "I have investigated," they found their argument on the shifting sand "I am told."

It would be impossible in this short article to give an adequate conception of the concomitance of phrenology and religion ; I shall only be able to give an outline of the subject. If however it causes some earnest seeker after truth to study the subject for himself, my end will be answered.

In order to get a clear idea of the subject I will propound two questions.

1.—What is Phrenology ?

It is the only true science of mind ; it treats of all the mental faculties, and the organs by means of which they are manifested.

2.—What is true Religion ?

Briefly defined, it is love to God, and love to our fellow men.

That an acquaintance with phrenology will be very beneficial to the Christian, I have no hesitation in maintaining. Having received the love of God into his heart, he becomes anxious to do something in return. He has embarked in the Gospel ship, taken Christ for his Captain, but he has not been on the voyage of life long before he sees many of his fellow men in the depths of misery and degradation. He has the life-buoy or gospel message in his hand, but how and when to throw it is left in a great measure to his intellect. Phrenology is the beacon light which reveals the struggling man's position, and thus does much towards helping the Christian to "Rescue the perishing." Is it not a fact that many good men have failed in their religious work because they have had no special qualification for the particular sphere in which they have been engaged? How is it that some preachers keep all their hearers awake while others send them to sleep? I could give many instances from observation of "round men in square holes"; Sunday school teachers who ought to be preachers, ministers who would make better deacons or churchwardens, theological tutors who ought to be engaged in mission work, secretaries who ought to be superintendents.

In this nineteenth century we have a great deal of talent, but we need more tact. This is, especially, the case in religious matters. When I was a lad, a certain local preacher used to come to our village chapel to preach. Just prior to the service he would go round the village with a bell and invite people to come to the service. There was, perhaps, nothing objectionable in that, but he issued the invitation in this style: "Drunkards, gamblers, swearers, backbiters, come to chapel." It, however, did no good; the people he was most anxious about stayed away. No matter how bad a man is, he will not be made better by this mode of procedure. Yet this same preacher was a most successful class leader among the Methodists, and when engaged in that vocation was in the sphere for which he was best adapted.

A Sunday school teacher may prepare his lesson very carefully; he may have the organs of language, ideality and sublimity very largely developed; his comparison, causality and eventuality may also be prominent; but unless he has firmness, self-esteem, secretiveness, and intuition, his teaching will be a failure, because he will be unable to get the attention of the boys or girls placed under his care.

Members of one church complain because their pastor, though a good preacher, does not do much visiting; others find fault with the preaching, but have nothing to say against

visitation by their pastor. We thus find stumbling-blocks even in religious organizations.

Phrenology is the "handmaid to Christianity," because it indicates clearly what an individual is capable of doing. An acquaintance with this science will enable committees to select the right person for the right post. Any church or individual therefore who rejects the aid of phrenology, is taking a course foolish in the extreme. God has given to one man five talents, to another two, and to another one. Some are fitted by their organization to take the lead, to assume the responsibility. The Rev. Hugh Price Hughes, of the London West End Mission, with his large coronal brain, is one of this class. Others are only fitted to be "hewers of wood and drawers of water." Each is useful if placed in the position for which he is adapted.

Mental philosophers in the past have been groping in the dark, trusting (as Mr. Story points out in his "Manual of Phrenology") to their inward consciousness.

Much credit is therefore due to Dr. Gall and his followers for having brought to light this beautiful system of mental philosophy. Phrenology is making headway in this country to-day. Men are studying it for themselves. This is as it should be, for anything that will not stand the test of examination cannot long prevail. Personally, I have received much encouragement from clergymen and ministers of religion in this locality (Nottingham), several of whom have presided at my lectures. I have also recently been asked to take a class for the study of the subject by the local branch of the Y.M.C.A.

In conclusion, then, I would urge all phrenologists, whether amateur or professional, to push the battle to the gates. We have no need to speak with bated breath and whispering humbleness, for our science is founded upon facts. And to those earnest religious men who have hitherto dispensed with this useful "handmaid" I would say, "Do so no longer, for truth must prevail."

Truth makes men free—as from the tree,
Warm Spring unbinds the bonds of snow ;
And bids in May the bright array
 Of well-loved, living beauty glow ;
So truth the soul from prison gloom
Brings forth, and robes in better bloom
 Than ever vernal season saw.

IS MAN A UNITY, A DUALITY OR A TRINITY?

UNLESS the premises in any kind of knowledge be correct, deductions drawn therefrom will be liable to error. This is the case in the investigation of every form of truth, scientific, literary, theological or what not. In order, therefore, to be able to judge aright of the actions of man, his mental and physical constitution should be known. To our mind, man is a trinity, and the observations which follow are in harmony with that view.

The "*homo*" of earth, then, as a trinity, consists of (*a*) an outward corporeal structure ; (*b*) of an inward divine "spirit," called the "Breath of Life;" (*c*) and of a "psychic soul"—the medium of inter-communication by means of cerebral organs between the "spirit," *i.e.*, "the Breath of Life," and the outward body ; the body being the outer vestment of the soul, and the soul the inner vestment of the "spirit." The "body" has a sense-consciousness ; the "soul," an intelligence-consciousness ; and the "spirit," a God-life consciousness. With these God-given endowments, and by means of certain special correspondential organization, man is enabled to apprehend and comprehend the highest forms of thought, and with pure emotion to worship the Deity, morally and religiously, with all his heart. At his first creation, or at his highest point of evolution, man was a perfect being in body, soul and spirit, and for ages God's "Breath of Life" ruled in him and over him, with an uninterrupted sway ; and this constituted the Eden-happiness of his earliest earth-life, till, from some unseen, perhaps, demoniac cause, combined with an innate susceptibility to be acted upon by spirit-influences, the God-element was suddenly dethroned, the soul along with its body, became enthroned in its place, and "man in ruins" became the laughing-stock of a universe of invisibles. This dethronement of the Divinity in man constituted what, in theological language, is known as "The Fall of Man."

When gazing on the grandeur and the magnificence of the midnight heavens, and knowing, as Dr. Young expresses it in his "Night Thoughts," that "one soul outweighs them all" in the councils of the Eternal ; and also that spirit, once created, can never die *per se*, and has an endless appetency for knowledge ;—the question to be solved became one of celestial as well as of terrestrial importance, viz:—How can humanity be restored to its original and pristine state, as man, by moral and intellectual cerebral organization, is naturally a religious being? He must by absolute necessity worship something—the sun,

the moon, or the starry-pathway to the skies ; aye, even rocks and stones would do, if but a God was thought to lurk behind them.

Having fallen, it was clear man could not worship the Almighty as originally intended. Doubtless, in process of time, impostors amongst mankind would spring up, as if inspired of God, to shew another and perhaps a better way ; and these altered conditions and new environments would give rise to the formation of the earlier religions,—to Aryan superstitions, to Astrology, Theosophy, Buddhism, and a host of other “isms,” which the history of mankind has recorded. Without the intervention of a Power greater than himself, man’s fall must have been eternal and final ; so God took pity on his sad condition ; a revelation was vouchsafed ; a people chosen ; and, according to the Jewish Scriptures, Jesus in due time appeared, as the Atoning Sacrifice, with a special message for the whole human race,—viz., to repent, and believe on the Lord Jesus Christ, and be saved : *i.e.*, the God-spirit of man should once more dominate the human trinity as God Almighty originally intended. Hence, arose the philosophy of pure religion, and the command, “Believe on the Lord Jesus Christ, and thou shalt be saved.” The practice of this religion is to do justly, love mercy, and walk humbly with God ; and its humanizing and exalting influence between man and man is brought about by following the divine injunction, “Thou shalt love thy neighbour as thyself ;” and Christ tells man how to obey this command, viz., “As ye would that others should do unto you, do ye also unto them.” This is practical Christianity in a nutshell. Is this all, says one, in order to pass our way to the skies ? Yes, all ; but we cannot take this first step in the upward heavenly march of ourselves alone, and also without calling to our aid the grand factor—language,—the vehicle of human thought. But what is language ? A general name for words, whose symbols are used as the signs of things. Words were made for things, not things for words. Things are the substance of which words are the shadow ; and if words do not represent things either directly or indirectly, as pinioned or winged words, they are mere empty sounds, and only on a par in meaning with the prattle of babyhood. A word to be intelligible must have its thingal meaning stamped upon it, and we must be able to read the inscription thereof, or there is an end at once to our gaining knowledge ; for all knowledge comes from sensuous perception ; outward things give rise to sensations ; and sensations, to ideas ; and these, again, are elaborated by reason, and its elaborations, into absolute knowledge, which is really

the re-conversion of outward material forms, by means of the senses, into their true correspondent ideas, and which become eventually psychic facts, eternal as spirit itself, which never dies.

If all words represent things, either directly or indirectly, *i.e.*, stand as the shorthand symbols for whole sentences, each individual word of such sentences representing a thing, or things, then, of what consequence are the meanings of those specially theologico-philosophical words, on the rendering of some of which hang the destinies and happiness of the whole wide family of man ! What is the meaning, for instance, of the word "believe" in the command, "Believe on the Lord Jesus Christ, and thou shalt be saved ?" What was the thing which originally gave rise to this peculiar word ? For, whatever the thing was which originally gave rise to the word, that is its real and intrinsic meaning. What does etymology say about it ? "To believe" is derived from the Anglo-Saxon word "Ge-leaf-an"—to allow, to permit, to grant. Hence, the word "belief" will signify something, anything allowed, permitted, or granted to stand in the place of a thing ; *i.e.*, to produce as much conviction on the soul as outward objects do, when derived from sensual perception. This is the meaning of the word "belief" : it is, in fact, neither more nor less than faith in words : that words shall influence the mind and actions as much as outward objects do, when transmitted through the organs of sense. If, then, faith in words is what is meant by belief, and words are to influence conduct as much as things do through the senses, then faith in words, *i.e.*, belief, ought to act as powerfully on the mind as things themselves do—the objects of sensual perception ; and this would always have been the case with all men, at all times, had not the "Breath of Life," inbreathed by God into man, lost its original ruling power over the human trinity. As things are at present, man seems to stand aside, and only consents to give his belief on certain conditions. With him, the word "belief" must be equivalent to knowledge derived from the evidence of his own senses, plus the corroborative evidence of that of others from a similar source. If the statement requiring belief is one appertaining to the extraordinary and the marvellous, and happens to be beyond his own knowledge and experience, it is rejected as untrue ; but if it be one demanding the assent in the impossible and the miraculous, both faith and belief are alike withheld, and the statement is at once thrown into the limbo of the impossible, the absurd, and the ridiculous.

If such is the case in reference to things believable in

philosophy and science, whose portals to the soul are through the senses, need we wonder there should be such widespread unbelief and want of faith in reference to what appears as the apparently impossible, and the thought-to-be miraculous ? Why, then, should it be thought strange that man should stand aghast, and seem lost in wonderment, when he reads the command :—“ Believe on the Lord Jesus Christ, and thou shalt be saved ? ”

To believe in the high religious sense—*i.e.*, with spirit power, is beyond the will of man to take even the first step in such a course of action. The sense-belief of one man plus the sense-belief of another man, may produce a sort of believable conviction in respect of the facts of philosophy and of science, but such a form of belief is vastly inadequate to produce soul conviction when the objects requiring faith and belief are the dynamics of the miraculous, or the marvels produced by invisible agencies. Had not a higher Power intervened and come to the rescue, man must for ever have remained an object of pity to the good celestial hierarchies ; would, in fact, have been a sort of minor god in ruins through all time.

Till the spirit of man is quickened by Him who gave it, this God-part of humanity lies in a sort of death-like slumber, and is perfectly powerless to prevent the combined action of soul and body from running into all kinds of vagaries, errors, and something worse. To alter this fallen condition man can do little of himself ; for “ it is not by might, nor by power, but by My Spirit saith the Lord ” that the supremacy of goodness in man can ever be regained. God is a spirit, and they that worship Him must worship Him in spirit and in truth ; *i.e.*, from conviction derived through the senses or from innate intuition.

The religion of Jesus Christ is simple. Belief and faith are its only possible foundations. No other foundation can any man lay than that which is laid, even belief in the words of Christ ; the words producing the same conviction on the soul that things do, as objects of sense-perception. Christ’s life, Christ’s sayings, Christ’s doings, and Christ’s triumphant final sacrifice for man, in language—the verbal symbols of the things which took place nearly 2,000 years ago, and which could not reach the souls of the present race of living men through the ordinary inlets of the senses, as facts of perception ought to command the soul-conviction of the whole wide family of man.

The Christianity of Jesus is written in the organology of the human brain, as made known in the functions of Conscientiousness, Benevolence and Veneration, which, translated

into Bible language, means—"Do justly, love mercy, and walk humbly with God." Christ, not content with telling man to love his neighbour as he loves himself, points out the method of doing so ; viz., "As ye would that others should do unto you, do ye also to them." For the "lost ones" of earth this is a simplicity for restoration to spirit rulership which no being but Deity could have devised.

The pure and simple religion of Jesus is very different from that ecclesiastical compound of heathenism preached in many of the pulpits of the present day, with the accompaniment of crosier, mitre, litanies, processions, mystic fans, and peacock feathers ; and still more so from those ancient religions which, at the present time, in mountain waves are rolling along with fearful rapidity from the East to the Western shores of Europe ; religions which require 800 re-incarnations, with intervening periods of time, spent in most abject states of asceticism, and amounting to millions of years ere perfection is attained, fitted for Navarnas blissful seats ; religions, at whose altars more than eight hundred millions of human beings bow down, hoping in time to attain to final purification. In comparison with those vast numbers the followers of Jesus are scarcely worth the reckoning up ; yet, all this labour at man's trying to wear away his own soul by his own puny efforts will be in vain. What takes man millions of years to attempt to do, but never to be able to accomplish, is done in a moment, according to the Christian's paean of salvation ; for Christ, looking upon the sin-stricken and penitent faith of the paralytic, said : "Son, be of good cheer, thy sins are forgiven thee." This work of a single moment would require millions of years for Buddha or the Occultists to be able to bring about.

SAMUEL EADON, M.A., LL.D., PH.D.

Hambrook Court,
May 1st, 1889.

HOW TO BE WELL.

"To LIVE," some one has well said, "is not merely to exist, but to be well." How few of us live, then, in the true sense of the term. Another writer tells us that "to be well is physical religion." Then physical religion shares the indifference of all other religions ; for, next to our souls, what is there that we so much neglect as our bodies !

"What a blessing to be well !" we exclaim ; and from our momentary animation one might suppose we should pay some

little attention to the laws by which the blessing is obtainable. But we have evidently been so long in the school where they learn "how not to do it," that here, as in some other things, "The good we would that we do not, while the evil we would not that we do."

In a measure our inconsistency is doubtless the result of not knowing what it is to be really well. To the kind or complimentary enquiry, "How are you to-day?" we find it pleasanter to habituate ourselves into replying, "Quite well, I thank you!" And providing we have come into no down-right collision with our daily duties, and our names are on no doctor's list, we vainly imagine that we have spoken the truth. But to be free from pain, and to get through a certain amount of work somehow, is not to be well! To be well is to feel delightsome. It is to possess that fulness of vigour and vitality with that elastic cheerfulness which makes the bare fact of active existence a luxury.

In young animals we usually get an illustration of this, and sometimes (shame that we cannot say always) in very young children. See the little fellow nurse turns out in the morning, fresh from his bath as a daisy from the dewdrops; his cheeks like polished apples, and his curly locks tossing gracefully with every movement of his well-formed head. His every step is a hop, skip, or jump. He runs, shouts, and laughs, his face ever and anon breaking into a wreath of happy dimples. His breakfast of brown bread and milk he takes to with incredible eagerness; it is so good, he has to thump the table now and then to give expression to his enjoyment. All day long he frisks and plays like the lambs and the kittens; and when at night his head seeks the pillow, down go the eye curtains at once, and sleep comes without a dream. That child is well because he is an embodied joy; and he is an embodied joy because he is well. How miserable to look forward twenty years and see this same boy grown a man, waking in the morning dull and head-achy, rising languid and unrefreshed to demand at his late breakfast a rasher of bacon and Worcestershire sauce, as well as strong tea or coffee, to enable him to eat at all, or, as he says, to pull himself together. Later still, he drags himself to his store or his books, but makes so poor an out of either that he has to take part of the day's work home with him, and sit into the small hours, smoking, and trying in vain to get up his arrears; to find himself in a worse condition the next day than he was the day before. Ask this man how he is, and ten to one he will reply, "Very well, I thank you," but there is no buoyancy, nor any such store of vitality as will tide him over a crisis.

Any extra strain or pressure, a little more worry than usual, a loss unexpectedly, or a draught of cold air checking perspiration, and he will be down, and in the doctor's hands for an indefinite period. And if this is so with men, what must be confessed of women. How few women can boast at maturity anything like the keen appetite, the joyous love of life and motion, together with that elasticity and bright enjoyment that little children have ? Indeed, how few have at maturity any stock of either physical or mental resource at all, such as renders them equal to the additional stress and strain of this period of their existence.

But, is it possible to possess this to maturity, some may be ready to enquire. We reply : Yes ; and to old age if we would combinedly set ourselves to learn and obey the laws of our constitution. Nay, more, facts go to shew that some who have been strangers to the blessing of health for many years, have won it back again, and have enjoyed for as long a period something very like the delicious zest and freshness of early life. For records of such experiences you have but to read, or hear, the story of many a restored patient of a hygienic and water-cure establishment, where they were simply obliged to return to natural modes of living ; to the primitive elements of health—air, water, exercise, simple food, and no worry. Such experiences point out the path to others. Think of

THE FOOD WE EAT

in quantity and quality, and how we eat it. All sorts of mixed dishes, seasoned with condiments, and saturated with the oleaginous juices of the most impure animal of its kingdom—namely, the hog. Fine flour and white bread as a staple article. Three courses of flesh meat (at a fashionable dinner), with side dishes, and all the conglomeration of incomprehensibles called sweets and pastry, to be followed with wines or coffee. And all this partaken in haste from business pressure, or untimely, from bad custom, or to a gormandising extent, from an over-stimulated appetite. What wonder need there be if we are unwell ? When we reflect that our bodies have to be made up of the things we have eaten ; that our limbs and organs, so to speak, are picked up from our plates, the wonder is that, as apologies for healthy men and women, we are as presentable as we are. It is not our intention here to argue the question of vegetarianism, though what need there is, when we can shake from the trees their luscious fruits, pluck the vine clusters, and garner the rich harvest of the earth in golden grain and every variety of vegetables ; what

need there is under these circumstances, we say, for us to imitate the murderous instincts of the beasts of prey to procure our food, and, at the same time, run the risk of taking in their evil diseases and vicious magnetisms, it is difficult to see. But if we would only substitute mutton for pork, and the whole meal and whole body-building loaf for the white loaf of starvation and constipation, we should have done much to cut off at one sweep the causes of almost all the diseases arising from obstruction and inflammation, and many complaints arising from exhaustion also, to say nothing of those unhealthy states of brain and mind that are engendered by a mismanagement of our stomach. Napoleon attributed the loss of one of his battles to a dinner which, at the time, disturbed his digestion. How many of our misjudgments and errors might be attributed to a similar origin. Often, it may be, we have eaten or drunk something which has deranged the condition of the stomach, that through its nerves, immediately affects the brain. If the liver as well is involved, the brain profoundly sympathises. What then? Why the temper is soured, while the mental view is narrowed; generous impulses are subdued, while prejudices and suspicions are strengthened. And the oftener such a state is induced, the more unjust and selfish shall we become, until we shall be nearly always cross, and to that extent wicked, because we have made ourselves unwell.

To put this question of foods and drinks into a nutshell, we need simply to be sure that what we take contains albuminous, saccharine, and oleaginous properties, combined with a proper admixture of salt, sulphur, iron, lime, and phosphorus. In choosing these, we should avoid such things as are tainted by disease, and regulate the quantity by the real wants of our individual system, as modified by age, sex, state of the digestive organs, and the necessary manner of our life. Even this may seem, at first sight, to demand much time and attention, but really it is not so. When once we have informed our minds generally, and begun the right practice, it will be found that a very little care and observation teaches us what is best in detail and particular.

In addition to foods and drinks of the right kind and quality, we must take, in order to be well, a sufficiency of

FRESH AIR.

Oh! we cannot tell what there is in the air, of good or evil according to its quality. God pours us out this atmosphere pure as His own heaven, and fifty miles deep, but by some inversion of our nature and senses, instead of receiving it to the very fullest extent of our capacity, we seem to make use

of every means in our power to shut it out. At any rate, to take in just as little as possible ; and that little, when we have imbibed and poisoned it, we try to keep to our own poisoning. The active hatred and despite which most people seem to cherish towards this Divine gift of fresh air, and their set resolution to breathe as little of it as possible, can have come only from a long course of habit in which they have grown accustomed to live almost without it. In a railway carriage what a storm of looked indignation you raise when, in despair at the intolerable foulness of the compartment, you let down a window. Our public rooms are often the standing witnesses of the mind's disdain of the needs of the body in this matter. Our churches are frequently worse, the bad air generated by one congregation being regularly locked up by the sexton for the use of the next assembly. And then people wonder why they gasp, get red in the face, and have confused and sleepy brains, while their minister, with a face still redder, and a brain still more oppressed, strives and wrestles through the hot seething vapours to make clear to them the mysteries of faith. Thus we call upon our souls and all that is within us to praise the Lord, but our indignant body, abused, insulted, ignored, takes the soul by the throat as it were, and says, if you won't let me have a good time neither shall you. Yet the body, far from being naturally such an infidel and opposer to the soul's progress and well-being, if allowed fair play, becomes a very good Christian in its way, and instead of throttling the soul, will give it wings to rise to celestial regions. This is seen by the fact that it is so easy to be religious on the breezy hill-side. There we can think of many a good thing that might be said in church or at prayer-meetings, but when we get there, where the air reeks with our many breaths, they have all vanished, and we soon grow dull and drowsy. And, even though we shift about, pinch ourselves, and otherwise try to lash up a spirit of interest and devotion, it is all of no use. A certain rural church, famous for its Gothic architecture, and equally famous for its sleepy atmosphere (Gothic windows being very small, and opening but partially), was felt by minister and people to be like the enchanted ground in "Pilgrim's Progress." Do what they might, the blue, red, and green of the painted windows would melt into a rainbow dimness of hazy confusion, and ere they were aware of it, they were off to the land of dreams ; until at length a common-sense and energetic sister, who had lately come to worship there, enquired if the church was ever thoroughly ventilated ; and upon finding that all the windows were

fastened, and the church was regularly locked up at every door from Sabbath to Sabbath, she borrowed, on the next Saturday night, the sexton's key, and went and set all the windows open, and they remained so until the next day. But, although almost everyone remarked upon the improvement, it was not deemed a matter of sufficient importance to order the sexton to continue the practice.

As to ventilation in our homes, one writer raises the question as to whether the community would not gain by the demolition of dwelling-houses altogether,—that is, he wonders whether the evils of foul air are not so great and constant as to counteract the advantages of shelter even. Without going to that extreme, however, we need to insist upon an abundance of pure air in our homes. Summer and winter, night and day, a current of pure air should be passing through their every apartment. Ventilation consists in two things,—a perfect and certain expulsion of all the foul air, and the constant entrance of air that is pure.

And, as well as air, get all the

SUNSHINE

possible. In the East, they just carry out the sick on couches, and set them in the sunshine to recover; and we all know that no plant can thrive without sunshine: neither can human beings. Set a potatoe in a dark cellar, and it will sprout and grow towards the streak of sunlight that falls through the chink of the iron grating. We ought to show as much sense as a potatoe. Let us live on the sunny side of the house then, as well as on the sunny side of everything. Never mind about the tapestry and the furniture fading a little; better have faded carpets and curtains, than faded, sickly lives.

EXERCISE

is another indispensable to our being well. Motion is the law of life through every department; all healthy natures are full of activity. Without exercise we cannot assimilate our food, the processes of depuration will be imperfect, and then the muscles will lose their tone, and the nerves in turn become prostrated. Every idler is unhealthy in body, and depressed in mind. It is the greatest mistake to imagine that recreation consists in idling away time: it really consists in doing all the time, but with such a change of thought and action as gives rest to those tired powers which need it, while affording exercise to such as have been resting. Riding, swimming, dancing, and public gymnastics, are all excellent

means of exercise to those whose occupations are sedentary, if used temperately, and they can be had free from all unhealthy accompaniments. We can most of us substitute to greater advantage light and simple home gymnastics, alternately with a fair share of stirring work, and enough walking each day to make our bed welcome. Whatever means we avail ourselves of, the object to be attained of course is to bring into healthy play every muscle of the body, without more than slightly fatiguing it. Of course we cannot exercise properly in tight or burdensome garments, and this brings us to consider the subject of

CLOTHES.

In this connection, it will be well to remember that clothes keep us warm in consequence of the air they enfold, air when confined being a good non-conductor of heat. Tight clothing, therefore, will not keep us warm, however thick it may be, because it gives little or no air space around the body, nor any porosity.

The dress of men, with the exception of the high hat and the tight-fitting and thin black suit of broadcloth, when donned out of the pulpit or drawing room, is open to comparatively few objections. While women must more readily confess to fashion having knocked out their brains in this matter of dressing, still an improvement is setting in with the more sensible of our sex, who have discarded tight corsets, and heavy trailing skirts, together with thin-soled or high-heeled boots. As the knowledge of physiology increases, this dress reform will spread, until every well-informed woman will recognise that whatever fails to meet the conveniences and true needs and proprieties of our life, must ever be a violation of good taste. And what an emancipation this will be for womanhood, from the slavery of her present false standards of beauty and fashion. A lady contributor to the *Herald of Health*, gives her own individual foretaste of this freedom comparatively with her experience that went before. She says, "In the customary dress I am at once transferred to a state of the most thorough incapacity for all practical and sensible purposes. My spirits and ambition become as effectually snuffed out as a candle with a pair of snuffers. I have no power, either aggressive or defensive; am unable to resist cold weather, and feel like curling myself down before the fire in a state of the most approved flexible vapidly. But in the other dress, ambition, health, and spirits are in the ascendant. Impossibilities become possibilities. I feel capable of meeting and conquering every difficulty that presents itself."

Could face a north-east storm if necessary, and run ten miles."

Again, in order to be well, we must

KEEP CLEAN.

The Mr. Dick, of "David Copperfield," was a philosopher, though he never seemed to finish his memorial; for when Betsy Trotwood took little David into his presence with the question, "What shall I do with him?" he sagely replied, "Wash him." The water-cure people have sometimes gone to extremes, perhaps, in this matter, but if we err, it is best to err on the right side. How many have found the quick cold sponge bath upon rising the bath *par excellence*, the coat of mail against colds, and, indeed, new vitality and life. While as a sanitary and remedial agent, no wonder the Turkish or hot-air bath holds its own against all others. It cleanses and promotes the healthy action of the skin, relieves the excretory organs, equalizes the circulation, and removes all local congestions; while it literally washes the blood from its impurities, and, as a last result, soothes and tranquillises the brain and the whole nervous system.

Last, but not least, we would remind our readers that, in order to true well-being,

RIGHT-MINDEDNESS

is essential, by which we mean a well-balanced phrenological, as well as physiological development. Some are too anxious to be well; they are always worrying over nothing, or over what nothing can alter, which is equally foolish. All the hygiene and medicine will be useless until they set about changing this mental habit by exciting its opposite, and bringing into activity and development more trust. Others are too melancholy to be well; they keep pet griefs and carry them about, as some ladies do their lap dogs, wherever they go. They are never happy unless they are miserable. They feel the best when they are worst. They will never be any better until they cultivate more hope and mirth, as well as faith; they need to laugh more, and sing more, and expect more, and be more thankful. Others are too sensitive to be well, chiefly from an overweening desire to be praised, or loved, or both, whether they deserve it or not. They are profuse of tears, and their grievances, like bulrushes, seem to flourish best in wet places. They weep so frequently over themselves that, in time, they become like those leaky fountains which keep a disagreeable puddle about them all day long. They need to harden their morbid approbativeness by

setting out with courage and determination to deserve love and praise anyhow ; and then they will get it, from their higher selves, at any rate, which will be more than a recompense until others who are like-minded come along, whose approval is worth having. Others are too bad-tempered to be well ; chronic grumblers, finding fault with everything and everybody, and keeping themselves and all about them in a perpetual nettle. Or they are petulant, and petulance is worse than simple grumbling ; it makes people like rattlesnakes, and to be with them for long is to lose your own health and happiness without helping theirs. Violent passion is the acute stage of all this—a temporary madness which every human being may well be ashamed of—and if we were only to shut our mouths tightly and think a little we should soon recover ourselves ; unless we are proud and stubborn as well as passionate, which always makes matters worse. All these mental aberrations can be dealt with, and all the better if we know ourselves phrenologically. It is a mistake to suppose that if we decently keep the physical laws all must be well with us, even so far as health is concerned. There is the nearest sympathy between our physical and the whole of our moral nature. Fear chills our blood. Melancholy renders us dyspeptic—indeed, affects every organ of the body for evil. Petulance causes hysteria in women and hypochondriasis in men ; while violent passion absolutely endangers life. The blood presses on the brain, jumps violently through the delicate machinery of the heart, congests the lungs, arrests digestion, and indeed clogs all the vital machinery ; and no wonder many have dropped dead through putting themselves out, as we say.

How many of us, therefore, if we would turn our eyes inward, would find that our physical ailments have their root-cause in the traceable discords and inharmonies of our minds. Just as truly as the most saintly aspirations and purposes may be defeated by an habitual ignorance and disregard of the physical laws of our constitution, so an unsubmissive, unconfiding, jealous, mean, or malicious spirit, will make vain all the physically remedial treatment in the world. We cannot deliberately and persistently do what we know to be wrong without wearing away by degrees the very nervous force needed for the effort ; and when that is gone, we are in a mental hell of misery, remorse, and helplessness. Nay, we cannot even neglect, much less positively suppress and pervert, our moral sentiments without becoming in time less of a man or woman physically as the result. In the exact ratio that we are physically improved by a cheerful, trustful, unprejudiced, and good-tempered condition of mind, are we

physically injured by the suspicious, bigoted, selfish, jealous, and revengeful in thought, feeling, and action. If in our moral nature we can unequivocally pronounce the verdict "right," we are at once invincible : we are happy, and we are essentially well.

ANNIE N. PATENALL.

FOOLS.

One may learn wisdom from looking on a fool.—FULLER.

IF there be any one subject upon which I am qualified to write better than another it is this of Fools. I need only take the Preacher's advice, and look into my own heart and write ; for—God help it !—it hath ever been a foolish piece of anatomy. But trouble not, I prithee, little one, this is not going to be a *mémoire à soi*. Another time—another day for that !

But even putting aside the personal item, one need not go far afield for material. The species Fool is not a rare growth, if, that is, we may trust our late lamented sage of Chelsea. The inhabitants of these isles, says he, are "mostly fools." O Thomas ! Thomas ! And for how long did they not accept thee as their only prophet ? And the prophet of a people "mostly fools," what must he not be ? Verily, the said fools knew thee for their own, knew thee to be of them—flesh of their flesh, bone of their bone, yea, very soul of their soul : a sort of double-concentrated essence of their soul.

Out of the fulness of their hearts thou didst speak thy wisdom, or whatever it may have been. For a prophet is but as his people intensified. There never yet was a prophet who did more than focus, so to speak, the thought that was lying dormant in the hearts of the people from whom he sprang. The thought was more than half theirs : in him it only found concentration and voice.

Ah, Thomas, thou wast little more than a tongue for thy people ! And in giving voice to their woes, how much of thy own merely dyspeptic troubles did not get mixed up with them ?

It is much the same with all of us. We are a sort of phonographs. Our mouths are vents to let out the griefs and to give voice to the aspirations of the humanity about us, and mingled with the plaint, there is always much of our own personal heart-sore or tooth-ache. I am but a weak voice of this latter half of the nineteenth century, and echo its joys and give utterance to its sorrows. A weak one indeed ! To be an embodiment truly of this great demi-century what a

mind would be required ! Perhaps in one of the multitude of Board-schools scattered throughout the land such a mind may now be coming to maturity. It will, I believe, come straight up from the people, and will be dwarfed in its growth by no University. At the Universities there are too many wise men : to learn all it is necessary to be much with the fools. Learning is a great thing, and seats of learning ; but, after all, the salt of the earth is found in the people outside, in the people not learned, perhaps in the "mostly fools." They never cry on the housetops in the morning philosophies that die ere the night come.

I say "perhaps," because in all my life I have found it a good thing to limit your assertions with a "perhaps." If mankind had taken that word for its intellectual motto, as I have done, what a world of pain and bloodshed it would have spared. I know a little man who stands just five foot four, and weighs about ten stone nine, who has been a few months at the University. But he employed his time well, and there is nothing of any moment in what he does not know. There is no unknown X to him. He has solved that problem—or what of it he has not is not worth solving. And if he had the power he would make every man know, or acknowledge, just as much as he does, and no more—or he would make the world know his shadow no more.

But let us turn to other fools. It is, I conceive, a supreme mark of Shakespeare's genius that he never wearies us with his common people—his clowns, his churls, his "rude mechanicals." We grow impatient sometimes of his 1st gentleman and his 2nd gentleman, of his lofty gentlemen even, but seldom of the baser sort. For myself I am never so well content with the performance of his plays as when the clowns and fools, those simple citizens, are to the fore. The reason is not far to seek : they are so human. They are of the stuff we most commonly consort with ; we know them to be of the same race as ourselves, our near kith and kin.

I have no special liking for your perfect beings, all wisdom and strait-lacing, without a weak or wanton streak in their whole composition. Your Rosalinds, your Portias, are fair and beautiful creatures to look upon ; but they are only for our contemplation as the possibly-realisable types. You can't breakfast and sup with them—unless, that is, you take your literature at such seasons : which is a desecration.

No, it is to the Audrys, to the Marias, that we look for human nature's daily food. Their simple features satisfy us best in this sublunary world. They are not too heavenly, nor too

ethereal, to be content to linger out with us the allotted eight or ten lustrums. Worse luck, I hear someone say. Out upon thee ! Would'st have perfection mate with a clown ?

I remember an artist of my acquaintance who took to wife a beautiful girl who was always in the seventh or eighth heaven of ecstacy and delight. Palette found this charming during their courtship, during their honeymoon ; but when, after some months of married life, she was still in that high heaven, he exclaimed with some concern, "I hope she will come down soon." Touchstone had no such trouble with his chosen fair one—the one of whom he said, "An ill-favoured thing, sir, but mine own." I always prized the sententious fool for that little touch. It is of the very essence of humour and pathos. There is no beauty in her, he says, nothing that one need specially love ; but I love her nevertheless ; and that being so, she is mine, and whoever hurts her, hurts me. In her is my life, my happiness—what of happiness a man may have in this world.

So Touchstone seemed to say.

There was always something very comforting to me in the reflexion that your fool may enjoy life more than a wise man. I say advisedly "more," not "better," because I have not yet decided between the "more" and the "better." It is a deep question, and one which needs much thought. It is the deeper because, when you come to think of it, you find both the fool and the wise man are content to live on a little. They do not strive too high, or grasp too much. They are both agreed, for one thing, that in great possessions there is much misery. So I, too, agree. It has ever appeared to me that all history turns on this point. In reading it you seem to hear nothing but a wail of kings, (or about them), and their cry is ever that of the horse-leech, "More, more !" That story of Alexander and the other worlds to conquer seems to touch the ingrained infirmity of all who strive for wealth and power. If someone could only direct them to turn their attention within and conquer that world !

A great-thoughted Frenchman, whom I willingly call Master, has said that happiness does not consist in having great possessions, but in hoping and loving a great deal. I agree with him in the main, though I would draw the line at loving "a great deal." Wisdom meseems lies not that way. I had a dog once that I loved very much, so much, indeed—.

But I will not tell that story to-day.

No, it is not wise to love anything in this world too much. Little, well-regulated passions aid one to live, great ones kill. That, too, is the great Frenchman's thought : they put things

so neatly, those Frenchmen, that one cannot deny them the flattery of occasional quotations. Many a man I believe has killed all that was beautiful in his soul by a too great passion for gold. I think it is wise to love gold a little ; at least, it is good—very good—to have a little. Neither poverty nor riches, O Lord, saith the preacher. In that prayer he was wise—wiser than one who has told us lately that it is a good thing to be born poor. He tells us also that next to being born poor, it is good to be born Scotch. As to the being born Scotch I am not prepared to speak with certainty, not having had any experience in that direction. If the kindly mother who bore me had happened to be Scotch, I would not have been anything else but Scot for all the world. But seeing such was not the case, I am quite content to let someone else open his mouth and brag. There have been, meseems, a few good souls born south of the Tweed. Meseems—

But anyway, we others have one advantage ; because, being born south, we had no need to go to the trouble of travelling south. For are not all fortunate Scots born with their feet towards England ? And so soon as they are big enough to wear breeks, do they not start for the border, carrying with them a little oatmeal, and with, I think, some powdered brass in it. The wisest of them are now finding that it is best to be born Scotch in England—the canny, pawky race that they are !

But as for being born poor : the Lord help the man whose wit can go no deeper than that ! If I knew that, being born poor, I should every now and again, and at the proper time, chance upon some good fairy, who would show me the stepping-stones to learning, advancement and wealth, or—ahem !—competence ; who would keep alike my body from starving for want of food, and my heart from starving for lack of encouragement ; who would give me the zest of the struggle without the breaking down by the way,—then, God wot, I would choose the poor beginning. And yet I do not know. Why should I give parents to the world to suffer the pangs of poverty without any prospect of compensation—without any hope of relief from the plenteous sorrows of the poor ? It were well for me with the kindly fairy to help, but what of them ?

It is doubtless a pleasant thing to look back upon a race that began in indigence, and rose into a full tide of prosperity and affluence ; but how much' pleasanter to have the remembrance of a home where the grim antic Poverty did not for ever sit upon the hob, aye staring your parents in the face, and keeping endless vigil over the cupboard and the bookshelf—to see that they remained forever bare : bare, the one

of all but its skeleton, the other of all but its Bible : which tells you the Lord will give you all for which you pray, and yet you pray in vain.

It is not all your brothers and sisters that achieve success, even though they may deserve it. Some are less robust or less comely than you. And even Providence has a way sometimes of giving skimp measure to the ugly. No, *pace* Darwin, it is not always the fittest who survive and thrive ; it is sometimes the frailest—morally.

So I think it is not a sign of wisdom to be born poor. A little poverty, I grant, is a good thing—but not for the poor. It is one of those things that, like medicine, should be given according to the constitution. Poverty is no antidote to the poor : it is the antidote to the plethora of the rich ; and there I would not apply it sparingly. I have always found that a touch of poortith has never failed to enhance the virtues of kings, or at least to make them more interesting to us. Wherefore I am ever in favour of giving them an occasional touch of it, if not of keeping them in constant sight thereof. I like to feel a sympathetic interest in the lives of kings, and I can never have that pleasure while they are for ever luxuriating on the earnings of others.

But, I would not have a queen touched with poverty : no, nor any other good woman either. They have, poor souls, pains and pangs enough without those of hunger. I hold so strong an opinion on this point, that, when I hear of a woman dying of want, I have a feeling that some one ought to be hanged—a bishop, for instance. I try hard to overcome this feeling, but I cannot.

But this, I fear, is sad fooling. It seems to me that this subject of fools leads us very far. However, I am with the wise of all ages in speaking of it : in that there is consolation. The fact appears to be that in this also “ extremes meet.” While the fool may be wise in his own conceit, the wise man gradually loses all conceit, knowing, with his little knowledge, how near he is to folly. For the more we look upon what we are, and weigh what we know, the more we feel that there is an unknown Something, the value and meaning whereof we cannot fathom. I am glad to leave it on the authority of so great a man as Luther that—

Who loves not woman, wine and song,
Remains a fool his whole life long.

So he sung, or said, his three centuries ago ; so sang another, five centuries earlier still :

Here, with a little bread beneath the bough,
 A flask of wine, a book of verse, and thou
 Beside me singing in the wilderness,
 Oh, Wilderness were happiness enow !

So sung the wisest since time was, or woman was, which is perhaps much the same thing, time being, so to speak, but man's six-feet of eternity. But it was not 'enow,' as Omar himself well knew. There was still something wanting to the complete reckoning. Was it the unknown X, I wonder ?

S.

PRACTICAL PHRENOLOGY.

By JAS. COATES, PH. D., F.A.S.

PHRENOLOGICAL QUERIES AND ANSWERS.

SOME of these queries have naturally arisen in the minds of phrenological beginners when attempting to apply phrenology to practice, and have been put to me by pupils in their anxiety to get at practical results. I give them and the answers here by way of an appendix to "Applied Phrenology."

1ST QUERY.

Persons generally come to phrenologists to test the science. They are not willing, as a rule, to give any kind of information to the phrenologist, lest in so doing, they may afford the examiner some clue to their character. Now, as education necessarily exerts a powerful influence over character, how can its influence be determined : from organization, temperament, or sharpness—pointedness—in the development of the phrenological organs, etc. ?

ANSWER.

Those who treat a phrenologist in the above manner, simply exhibit ignorance of the nature and character of the science whose teachers or exponents they are about to consult. They also exhibit their own shallowness—self-satisfaction—in a very readable manner. Most people when consulting a physician, or a solicitor—seeking medical or legal advice—generally give all the information (from their point of view) they can to their adviser. In doing so, they think they are acting best in their own interests. Phrenological clients would best consult their own interests if they would act in the same reasonable manner. If a parent would know

for what his boy was best adapted, he would do well to inform the phrenologist what are his own views on the matter ; also volunteer information as to the boy's education and inclination for certain pursuits (if any). He might also with advantage inform the examiner about the classes of employments, business pursuits, and professions in his own neighbourhood, and possible influence of himself and friends in obtaining an entrance for his child into one or other of them. Two things—the boy's education and the parents' influence as to selection of pursuit—will be important factors, in addition to the youth's proclivities and character, in enabling the conscientious practitioner in arriving at a decision.

Education is not something added to the character distinct from itself. It is rather the innate qualities educed or drawn out, improved upon or otherwise by a certain course of discipline, and the natural growth in civilization of the various faculties under the stimulus of the senses themselves, automatic or otherwise. Education is in general a storing of the mind by the cultivation of memory—a process of creating striking or vivid impressions—which are to some extent afterwards retained, and can be automatically and consciously reproduced. "Language" (in memory and expression) is drawn out, exercised or cultivated. The faculties of observation are appealed to, and their attention directed to certain objects—organic or inorganic—in the world without. "Calculation," "eventuality," "comparison," and "causality," "time," "tune," and "constructiveness" are in time brought into play. A certain amount of discipline is also exercised on the moral, social and selfish nature, generally through "approbativeness" and "acquisitiveness," etc. Perhaps the most powerful agents of education are those forces of example and association, whether in school or out of it, which affect the majority through "imitation."

In any case, a person can only be educated according to organisation and cranial development. Such qualities as the person may have can be called out, exercised to their fullest, or perverted to their lowest, according to the character of the education. Education neither adds to, nor conceals anything from, the knowledge of the practical phrenologist which may not be practically detected in the course of consultation. Whatever the influence or effect of the education, unless most recent, it must be seen in the permanent results produced in organisation and character.

Education or discipline has a modifying influence on innate capacity—character—or else the phrenological advice to "restrain" or "cultivate" would be meaningless terms.

The stock-raiser and horse-trainer would not pay so much attention to breeding and "breaking in," had he not already certain good materials to work upon. What is this "breaking in" but education—the directing of the qualities or faculties the horse already possesses, so as to make him more serviceable to man. No "breaking in" will give breed, stamina, spirit, nerve, fineness of fibre, if not already inherent. True, lack of training or education will deteriorate these qualities somewhat. No amount of education can give capacity where it is not possessed, neither can it change inbred grain or quality. It cannot change a cart-horse into a racehorse. Although this "breaking in," training, education, what not, with its right feeding, good brushing, fair work, and kindness in treatment, may make the horse brighter, more healthy and useful, yet, when all is done, the cart-horse will still be no more than a cart-horse, the racehorse, a racehorse. Neither can education change the Ethiopian into a Caucasian, nor either of them into aught else than what their present organisation and phrenological development declare them capable of being.

The uneducated waif will be distinguished by his appearance from the refined and cultured youth, and each from each other, by the individuality of their organisation and cranial development, rather than by the scholastic attainments of the one, and the utter lack of these in the other. So you may know the true character of either, as you would distinguish a drunken man from a sober one—not by what he assumes to be, or by what he hides, but by what he really is.

If the organisation is fine, "the organs of educability"—the observing, literary, reasoning, and intuitive faculties—favourably developed, "conscientiousness," "acquisitiveness," "constructiveness," "continuity," with the semi-refining and aspiring faculties sufficiently influential, you can pronounce with certainty as to the influence of education. If certain organs are more fully developed than others, "locality" or "causality," for instance, should they present sharpness or pointedness, it will indicate that their development has been more recent than that of other organs. Roundness, fulness, and smoothness are generally indicative of normal growth. Exercise your judgment upon careful examination.

I understand, generally speaking, education to mean primary, secondary, and higher class scholastic training, which is obtainable at our private and public schools, academies, colleges, and universities throughout the country; but whether in this sense, or in a broader one, my answer is sufficiently full for practical purposes. I may add that, in girls under 11, and boys under 14, years of age, the influence of education in the

foregoing sense will be quite appreciable in cranial formation as well as in that "lighting up" of the physiognomy which distinguishes the apt lad from the dullard. The influence of education at school, and its further development by trade, occupation, pursuit, and habit, is more detectable in woman and in man than in childhood.* The phrenological development, build, physiognomical expression of head and face are then more definite. Educational influences—*i.e.*, scholastic training—are most marked in those organisations which are fine in quality, full in the frontal cerebral lobes, where the mental temperament, in some of its forms, presents itself. In a word, where there are brains to educate, they can be educated ; and, if educated, the influence, and presence of such influence, are discernible in "contour and quality," and readily interpreted by the phrenologist.

In practice, skilful observation of head and face, mannerism, ease, grace, correctness or otherwise of speech, are all worthy of consideration in estimating the influence of education. Such indications are not to be despised, even if their observation savour of common-place. The influence of education is, therefore, discernible in organisation, phrenological development, physiognomy, and manners.

2ND QUERY.

In taking the measurement of the head, how should a chart be marked, if the measurement one way is not in proportion to measurements another way ? You say,† "The average size of the male head is 22 inches in circumference, with length and coronal height about $14\frac{1}{2}$ inches. This size I should mark in register 4, or average $22\frac{1}{2}$, with corresponding length and height. I should mark 5, or full." But suppose there is not "corresponding length and height," how do you manage then ? Do you make allowances for these differences in marking the register, or no ?

ANSWER.

Yes, always ! Marking charts, in my private opinion, as far as the public are concerned, is comparatively of little scientific value. You can only at best mark that which approximates to your conception of the truth, as no two heads are exactly alike ; the marking of certain stereotyped phrases (however good and explanatory) can never be satisfactory. It is useful

* See "Cranial Measurements of School Children," by Mr. James Webb (Vice-President of the British Phrenological Association, London), page 36 "The Phrenological Annual and Record, 1888."

† Page 13, "Practical Phrenology."

simply as an aid to the memory of the person whose head has been examined, and to the phrenologist, in that it takes far less time to mark than it would to write a careful and accurate analysis of character.

When marking your chart take into consideration, as much as possible, "future conditions" as well "as present development," and mark to encourage development of character, so that each trait, strength or weakness, may stand out clear to the person's mind who seeks your phrenological aid. Be particular to show clearly what you want cultivated, or restrained, in order to perfect character within the limits of the possible capacity of the individual.

Where it can be done, always advise your patrons to have a written statement. Recommend it not only as an aid to their memory, but as being less liable to misinterpretation and contradictory statements than the markings on a chart sometimes suggest. Your aim in marking a chart is to give as accurate a delineation of character as the circumstances will admit. Absolute correctness in every particular is not claimed, neither is it possible, and short of a written statement, due allowance, in every case, must be made to the examiner and the examined. It is well to accustom yourself to writing "Summaries of Character," and "Full written Analysis of Character." As I have hinted elsewhere, write as you would speak; use no physiological, anatomical and phrenological technicalities which can be avoided. Remember, you write to give information and help—help to aid the boy to be a man, the man to be the better man, and both how to occupy their truest and best sphere in life with honour and credit to themselves.

In conclusion, as to these chart markings, write down whatever you consider is truest to the character of the person examined. Remember, you are dealing with "variable quantities" and not "mathematical certainties." When you find $4\frac{1}{2}$ fails to express your meaning, *and 5 does, use 5.* Thus a 22 inch brain, with 5 or 6 in quality, 5 or 6 in activity and excitability, standing 6 mental, 5 vital, and 5 motive temperaments, if 4 or average, as applied to size of brain, does not (for instance with L. N. Fowler's Self-instructor) fully represent its power, write 5 if that would be the truest approximation. It is, however, best not to suppose cases; when actual ones come before you, act according to your best judgment. You cannot do better.

Written and purely verbal descriptions of character are best. Marked charts and registers have done more to bring phrenology into disrepute than anything else I know of,

save the downright ignorance of the whole science exhibited by those so-called " professors " and perambulating phrenological quacks who so much discredit phrenology throughout the country.

3RD QUERY.

Excitability and activity :—Is sharpness of features and form an unfailing measure of excitability, or length of features of activity ?

ANSWER.

No, to the former part of this question ; yes, as a rule, to the latter. Excitability, intense susceptibility, or sensitiveness, with or without health, is one of the conditions found in connection with a fine or delicate organisation having a predominance of brain and nerve, as in the mental temperament. Activity, sprightliness, and vivacity, are more frequently indicated by a healthy vital-mental, mental-vital, and mental-motive organisation, than by any other temperamental combination. In the sense that a greyhound is more active than a bulldog, a racehorse than a cart-horse, length or slimness indicates activity. Nevertheless, persons can be tall and slim and *heart-lazy*. Little people, as a rule, are more active than big folk, for the reason that the nerve currents travel more rapidly in small and fine organisations than in large and coarse ones.

4TH QUERY.

What is your opinion of the use of calipers, phreno-physiometers, and of mathematical measurements such as suggested by Stratton, as aids in arriving at character ?

ANSWER.

All of these are valuable enough with certain gentlemen who delight in the pedantry of phrenology ; they are amused thereby, and their interest in phrenology sustained. I do not know that they are any the more able to read character in consequence—if, indeed, they are not somewhat misled by these means. If all brains were of the same quality, texture, health, etc., their use might be more valuable. I do not despise their use. Stratton's " Mathematics of Phrenology " are interesting, his methods of measurement ingenious, and his conclusions go a long way to prove what he wished to prove. Still I am not satisfied. I don't think the soul of man can be pinned in a corner like that, and photographed to a hair's-breadth by any such methods. Where the eye and hand of the intelligent practical phrenologist fail, I am afraid calipers and phreno-physiometers will not be able to succeed. The author of "The

Philosophy of Phrenology" says, "The eye and hand are better measurers both of form and size than calipers or any other instrument, and should be made to supersede every such instrument." With this I cordially agree.

5TH QUERY.

Is it possible for a person to have a perfectly healthy brain and yet be idiotic or insane?

ANSWER.

You can have a perfectly healthy brain in which idiocy is manifested. It may be large or small, but it must be bad in form, low in quality, coarse in structure, or possess some serious organic defect, to be idiotic. In monomania or insanity, disease is always present—disease which not only affects the brain, but may include the whole organisation. In the former, imperfect activity of one or two organs; in the latter, intense activity and the actual formation of lesions or tumours on the brain, will be at the basis of the mental derangement whatever it may be. Fifty per cent of all cases of monomania or hallucination should be curable within an early period, and 25 per cent. of all cases of insanity within twelve months of the date of erratic manifestation. Beyond that period the percentage of recoveries become "small by degrees and beautifully less," as the physical and pathological conditions causing the disease become confirmed. I think the percentage of recoveries is exceedingly small compared to what it should be, owing to the insanity of the authorities,—herding the insane in vast asylums; treating them in groups, instead of phrenologically as individuals, each case on its own merits, and thus hasten their recovery. Thousands suffering from mere delusions and harmless fancies, fine-grained and fine-brained individuals, are incarcerated annually. Many of these are driven into actual insanity by the psychological laws of association and the medical treatment—or, rather, want of it—which such huge concerns must necessarily entail. An idiot may have a perfectly healthy brain, but to one that is insane, health of brain, or of body for that matter, is an impossibility.

6TH QUERY.

If a brain measures $22\frac{1}{2}$ inches first circumference measurement, and $23\frac{1}{2}$ in second circumference measurement—the first being taken with tape around the head at "individuality" and over "parental love," the second over "comparison" and "continuity"—these measurements indicating more the

theoretical than the practical talent (page 22), would not the individual, in the direct exercise of the perceptives, evince as much power as one whose head measures $22\frac{1}{2}$ in the first, and 22 inches in the second measurement? That is to say, would his perceptions of "size," "weight," "colour," etc., be as correct as one whose brain measured the same in the perceptive brain fibre, but less in the reflective?

PHRENOLOGY IN THE PULPIT.

THE following remarks by the late Henry Ward Beecher, the great divine, and brother to Mrs. Harriet Beecher Stowe, may perhaps meet the objections raised by some persons to "Phrenology," as tending to materialism and fatalism:—

"It is very hard for a minister of the Gospel, standing before a promiscuous audience, to deal with the facts of their minds and their inward lives. It is a melancholy fact that men know less about that which is the very element of their being than about anything else in the world. I suppose if I were to go among the intelligent men of my congregation, I could get every variety of information on subjects connected with the daily business affairs of life—upon questions of political economy, upon various questions of commerce, facts concerning the structure of ships, steam engines—I could collect any amount of information on all these, and a thousand other kindred subjects. But when I ask them what is inside of themselves, they can tell me of a great manufactory, and explain to me the operation and use of all the machinery in it; but upon the question of the machinery of their own minds they cannot say a word. In regard to commercial matters they know all about them; they have compared their ideas on these subjects, and have classified them. They believe themselves to be immortal creatures, that they have throbbing within them a soul that shall live as long as God Himself shall live; yet, when I ask them any questions in regard to their inward nature, their only reply is, 'I don't know, I don't know.' They do not know what their reason is; they do not know what is the nature of their moral powers; they do not definitely understand the nature or operation of any one faculty of their minds. They understand the nature of the soil of the earth; they know the use of the plough, and all the implements of agriculture; they know what to do with a plant that is not thriving, they are skilful to impart to it a fresh life, and make it flourish. But if any plant that ought to grow in the mind is stunted and does not

thrive, they cannot tell how to make that grow. They don't know what to do to bring it forth.

"It is difficult for a minister of the Gospel to set forth the truth intelligibly in respect to its relation to the human mind. I think it is partly because men have not been curious in respect to themselves, and partly on account of the many bewildering systems of mental philosophy that are in vogue in our day. For, if there were none of these systems except the old schools of metaphysical philosophy, I would defy any man to obtain by means of them any clear idea about the soul, for at best they are of but little more value than so many cobwebs.

"Men may study them, however, if they have a taste for them ; if a man loves logic and discussion, let him take one of the old metaphysical philosophies, and he will have means of busying his mind until he grows tired of such business.

"But, if a man wishes to know practically what he is made up of, if a man wishes a knowledge of human nature for definite practical purposes, there is no system which will aid him in acquiring that knowledge like the system of phrenology ; not interpreted too narrowly or technically, but in its relations to physiology, and the structure of the whole body. And I may say here what I have never said before in the pulpit, that the views of the human mind as they are revealed by phrenology, are those which have underlaid my whole ministry ; and if I have had any success in bringing the truths of the Gospel to bear practically upon the minds of men, any success in the vigorous application of truths to the wants of the human soul where they are most needed, I owe it to the clearness which I have gained from this science. And I could not ask for the members of my family or church any better preparation for religious indoctrination than to put them in possession of such a practical knowledge of human nature, and the human soul, as is given by phrenology."

BRITISH PHRENOLOGICAL ASSOCIATION.—An extraordinary general meeting of members only of the above Association was held at the Memorial Hall, Farringdon Street, on Monday evening, Jan. 13, to discuss and adopt measures for obtaining a substantial institution in furtherance of phrenology. It was definitely decided to issue an appeal for contributions to the fund which was started on the spot, and to which about £40 was immediately contributed by members present. Mr. John Melville was appointed secretary to the scheme, and Miss A. M. Baker treasurer. The meeting stands adjourned until further notice. All communications should be made to the secretary, John Melville, 4, Imperial Buildings, Ludgate Circus E.C.

HARMONY.

By JOHN MELVILLE.

"I SUPPOSE that is a phrenological chart?" quoth my friend glancing at the coloured representation of a head hanging close by. "Its divisions give it the appearance of harmoniously arranged flower beds in some well-kept garden, or might convey the idea of a head encased in armour." "Your guess is correct as regards the first part of your observation," I replied, "and I cannot refrain from remarking that your latter observations, made as they are on the spur of the moment, and in entire ignorance of phrenology, contain two words bearing a worthy suggestion of thought in connection with that great subject," (and a close affinity etymologically to one another.) Those two words are "harmony," and "armour." Harmony is the life and soul of music, is a comparatively modern invention, and has not yet been introduced into the music of the Chinese, and other Eastern nations. The ancients knew very little of harmony, hence to be comparatively harmonious is to be civilized; to be wanting in harmony is to be more or less barbaric. But even the most civilized man is very far from harmonious, and it is the special aim of the true phrenologist to render him more so. Harmony may be either natural or artificial, may be divided into simple or compound, and, in music, is the agreement of two or more united sounds.

Sound, from a human standpoint, is nearly related to speech, of which there are many kinds. Language is said to have become inharmonious during the building of Babel. There is a harmony as of the spheres. Shakespeare, in the *Merchant of Venice*, makes Lorenzo say to Jessica:—

"There's not the smallest orb which thou beholdest,
But in his motion like an angel sings,
Still quiring to the young-eyed cherubim."

And Addison's hymn—considered to be the finest in the English language—indicates a similar kind of harmony in the lines:—

"For ever singing as they shine,
The hand that made us is Divine."

One of the eternal purposes of the Creator, and the secret of much that seems mysterious to man in the myriad complex workings of innumerable complicated laws, is the ultimate

creation of universal harmony. Leibnitz introduced the doctrine of harmony pre-established, and this would seem in one sense to agree with the doctrine which teaches that in the beginning everything "was very good;" that the primitive working of the faculties were intended to be harmonious, and thus agrees with phrenological teaching that all men of to-day who are most truly good and great are those whose temperaments and faculties are evenly balanced and harmonious in action. Strange that the word "harmony" should be etymologically so closely allied to the word "armour,"—that peace and war, harmony and discord, should wander abroad in the same green pastures and dense forest. Thus we perceive the co-existence of the lion and the lamb: externally different, yet each containing internally the elements of harmony, which shall yet develop till they lie down in peace together. So with phrenology: the lamb of harmony, and the lion of discord wander in the hemispheres of the cerebral globe, but will ultimately lie down together in harmonious accord.

There is nothing—no gem or honour—more precious than harmony. The truly patient person is on the grand staircase of harmony. The envious cannot climb it even on their knees. Heaven is harmony; hell is discord. Harmony, being the soul of good music, helps to balance even the mind of a Saul. Thus harmony produces harmony. If you are in a building on fire, sit still, and others will act more calmly.

We each possess a great organ—that of brain—and thus have the means to produce harmony or discord. If we have not learnt how to handle the instrument, if our will is weak, we shall produce more discord than the child who thumps the piano keys promiscuously. Thus we may have a mind harmonious except in will; an harmonious organ but no wind pressure.

If we learn to use our powers harmoniously we shall bring our contribution to the fund of the universe, to be applied to making others happy through life, of which present existence is but the centre of an ever-expanding circle.

We cannot give forth harmony unless we ourselves are harmonious. The object of phrenology is not only to judge correctly of character, but to induce concord; to know, and carry out the best methods of producing harmony of the mental faculties both in ourselves and others.

Our present system of education is a very wasteful one. This will be greatly remedied when true phrenology becomes the basis of instruction. The production of universal harmony is the end of all creation. Phrenology is the expert tuner of an organ far greater than the splendid instrument lately dis-

patched to Australia. Phrenology seeks to induce concord, and to prevent the present enormous waste of talents, time, and power.

The absence of harmony in nature is due to want of proportional condition, and in like manner, undue weakness or strength of any mental faculty, is due to disproportional brain development ; and this great human organ the brain as much needs regulating in whole or part as the church organ requires tuning.

There are some persons who try to show a want of harmony by pointing out that the phrenological organs differ in size of marking : thus the external sign of "colour" never covers an area of the same extent as "cautiousness," or "conscientiousness." Now, this does not indicate a want of harmony any more than in the case of an instrumental organ where the pipes are of different sizes, and yet yield notes capable of harmonizing, so that when the phrenologist speaks of one brain organ being larger than another, he really means proportionally stronger ; just as the artist may perceive want of harmony in bodily proportion, although he well knows the fingers are always smaller organs than the arms.

Change is the blacksmith of this village-world, who, by fire and blow, by labour and song, shall beat men's swords into ploughshares and their spears into pruning-hooks, rendering armour emblematic of harmony. Phrenology teaches similarly : we must change. There is no harmony without motion. For centuries man has phrenologically manifested over-large combativeness and destructiveness ; but the day must come when the coronal sun of moral unselfish sympathy will disperse the mists of basilar barbarity which arise to water the garden of ignorance, thus ultimating in a second harmonious Eden. Earth girds on her cold glistening armour and in many a wintry battle protects the sleeping camp of Nature until cuckoo bugles awaken crocus and snowdrop to join in springtime's harmony. Let us gather up the crumbling leaves of ages, and read on their scattered pages lessons of experience, laying their mould around our life-tree that its fruit may be enriched with refreshing goodness. So shall the moments of each New Year incite us as phrenologists to love and serve our fellowmen on the lines of phrenology, of which science Horace Mann wrote thus, "Phrenology is the guide to philosophy, and the handmaid of Christianity. Whoever disseminates true phrenology is a public benefactor."

Hygienic and Home Department.

FARING SUMPTUOUSLY.—Dr. Crichton Brown, in his excellent paper on "Brain Growth," says:—"To fare sumptuously every day, to bask in luxury and idleness, is to court decay of the noblest of the tissues, for moth and rust do corrupt even the greatest of man's treasures—his intellect—when it is laid by in uselessness and lavender; and thieves will surely break in and steal away his brains, unless they are zealously guarded and diligently exercised." To which the London *Lancet* adds:—"This is a practical point of the highest value and moment, and one that cannot be too strongly or constantly expounded. The brain grows by use individually and socially. If it is not habitually employed in a class or family it will sink into subordinate importance."

ENGLISHWOMEN never allow severe weather to keep them within doors. Rain, if falling heavily and persistently, may interrupt pedestrian exercise, but frost and snow are the greatest inducements to ladies to wrap up and rush out shopping, walking, and skating when the ice serves. This bodily activity is a fashion of recent years. The young lady who thought herself an interesting person because she had consumptive tendencies does not now exist, or rather, an enlightened age demands health preservation as a moral duty, and society detests valetudinarians. Few of us are without an acquaintance—she is sure to belong to a past generation—who occupies the first ten minutes of the morning call with plaintive descriptions of her own real, or imaginary, maladies. Not a cough on the previous day is omitted, not a shiver, nor a serious sensation, all which details she mercilessly inflicts on her listeners, forgetting that she is only interesting to herself, and her sensations are wearisome to other people. The late Mrs. Proctor, mother of the gifted poetess, used to give advice to young people on the art of being socially popular. "Never tell people how you are," she was wont to say: "they do not want to know."

GOING UP-STAIRS.—Climbing stairs occupies a great deal of time in these days, and consumes a great deal of strength. There is a right way of going up-stairs—a way that will make the climber stronger rather than weaker. There is a wrong way of going up-stairs that will injure even strong men, and that will in time ruin the health of women and girls. An eminent physician, speaking on this subject the other day, remarked that a great many business men of his acquaintance were suffering from improper stair-climbing. The wrong way is to run upstairs. A man will rarely run in the street, though he may be in a great hurry; but when he comes to a long flight of stairs, he will put a foot on each stair, and project himself upward as nearly as possible as though he were flying. Of course, this causes derangement in the circulation, and often ends in permanent derangement of the heart. The right way to climb stairs is

to put the heel on the stair, then spring over on the toe, bringing each limb in alternation perfectly tense and straight as stair after stair is gone over. In short, walk up-stairs as you walk up a gentle incline, putting the heel down first, and never resting the body on a flexed muscle, but always on a tense one. Take as much time in raising yourself by stairs to a height of thirty or forty feet, more or less, as you would take to climb a hill of that height. Women who dress properly can walk up-stairs after the manner described without injury. The improper dress, high heels, tight clothing, the weight of which does not hang from the shoulders, makes stair-climbing hurtful to women. The high heel keeps the limb flexed all the time, and throws the whole muscular system out of gear; the tight clothing prevents proper respiration, and the wrongly suspended weight endangers delicate organs that under right conditions would receive no injury. *Walk up-stairs.*

DR. ALICE B. STOCKHAM, writes: "One finds no greater contrast to our American customs than that of employments for women in Europe. There, among the peasants and lower classes women do every kind of work that men do, planting, hoeing, reaping, thrashing. In Russia, however, they draw the line at plowing. That employment is considered decidedly masculine. In Finland, I saw women carrying the hod in buildings four and five stories high. Women do all kinds of marketing, selling all manner of small wares upon the streets. But once you step into what is termed the higher classes, it is rare to find vocations opened to women. An intelligent, refined woman is too fine a creation and must not be tarnished by anything so practical as money making. In America, every vocation that a woman chooses to enter has become honourable for her. An educated woman who has not been trained to any special calling can find no more honourable, useful and lucrative occupation than that of canvassing for good books. Hundreds of women have supported their families, educated children and bought homes in this work. These women choose some good book and enter upon their calling in the spirit of a philanthropist. They learn their business and devote themselves thoroughly to it. These are sensible women who know there is no obliquy upon any kind of work. For them labour is consecrated. W. C. T. U. women often canvass for books, for the double purpose of making money and of getting into the homes where they can interest the inmates in temperance. Hundreds of women have maintained themselves, and often families of small children, by selling *Tokology*, a book for every woman. At the same time they have felt rewarded by the knowledge that they were carrying good news to women." There are still many places where this book should be introduced, and our agent in Great Britain and Ireland—L. N. Fowler, Ludgate Circus, London,—will be glad to correspond with women in reference to devoting their time to this work through the next few months.

Notes and News of the Month.

MR. JAS. WEBB has arranged to give a lecture on "The Brain; or, Modern Research and Phrenology," in the Lecture Hall, Barclay Road, Leytonstone, on Feb. 4th. The lecture is in answer to the attacks of Dr. Wilson.

THE *Star* says:—"Along with Miss Harkness's story, 'A Manchester Shirtmaker,' to be published after Christmas by the Authors' Co-operative Publishing Company, will appear another Manchester story, 'The Old Corner Shop,' by Alfred T. Story, who is a Manchester man." The same Company is about to publish a striking work entitled "The Christ in London."

A RESIDENT of Penn Yan, N.Y., has been carrying a bullet in his brain for two years. When he was shot he was a morose, drunken, fighting fellow, dreaded by all who knew him; ever since the lodgment of the bullet in his brain his entire nature has been changed, and he is now a peaceable, intelligent, and industrious citizen. Have we not here a solution of the great problem?

THE BRITISH PHRENOLOGICAL ASSOCIATION.—The usual monthly meeting of the British Phrenological Association took place in the Board Room, Memorial Hall, Farringdon Street. There was a good attendance. Owing to Miss Harrison's inability to attend, as was previously arranged, to delineate the character of one or two persons, Miss Oppenheim took her place, and gave an examination of a gentleman, whose name did not transpire. Mr. Alfred Hubert gave a brief summary of his work during the past twelve months in Harrogate and the surrounding towns. Mr. Donovan presided.

WE are sorry to have to record the death of Frederick F. Morgan, Esq., retired surgeon of the Royal Navy, which occurred at his residence, Monnaie de Bas, in the parish of St. Andrew's. The deceased gentleman was only in his sixty-eighth year, although he came of a long-lived family, his mother having died in Jersey as recently as July 29th, 1886, at the venerable age of ninety-one years and four months. Dr. Morgan had resided for many years in Guernsey, where he was well-known and much respected. He was a man of pleasant and genial manners, and in years gone by, when the Working Men's Association was in existence, he on several occasions, ably occupied its platform as a lecturer on various scientific and natural history subjects, which he treated in a very interesting manner. Mr. Fowler sums up his character in a few terse remarks. His power of locomotion was great, equal to fifty or sixty miles a day.

Very neat and systematic, firm, exact, honest, and straightforward ; was affable in manner, but firm in his principles and reliable in his habits and modes of living ; was particularly kind to the helpless, and not disposed to take undue advantage ; was very particular to keep all his engagements ; gallant and polite to ladies ; adapted to married life, and home and domestic enjoyments. He was a minute and intelligent observer, and kept well posted on what was going on. He was a man of good taste and imagination, and wanted everything in style, and as perfect as it could be ; was very punctual in his engagements, and had no time to lose when there was anything to be done.

What Phrenologists are Doing.

[In sending notices for this column, correspondents will oblige by enclosing their communications in an envelope and addressing them to the office of publication of the PHRENOLOGICAL MAGAZINE. Newspaper cuttings pasted on post cards are an infringement of postal rules and subject to a fine.]

THE following is a paragraph of work that is being done in the evening schools of Surrey Lane, South Lambeth :—Perhaps the most intensely interesting lecture of all has been that on phrenology by Mr. George Cox. Very important is it for young people to thoroughly understand the kind of work and study for which they are most fitted and for each one to follow the natural bent, and to cultivate the character in such a way as to produce the best results. This is the object of Mr. Cox's lecture, and no one who has once heard him will doubt the wisdom of the study of this science. Mr. Cox has already visited several schools of our district, and everywhere his lecture has called forth unqualified manifestations of approval.—*Mid-Surrey Gazette.*

A LECTURE ON PHRENOLOGY AT THE GOSPORT LIBERAL CLUB.—On Wednesday evening Mr. Alfred T. Story gave, at the Gosport Liberal Club, the first of two lectures on phrenology. Mr. J. J. McSheedy, president of the club, occupied the chair. Mr. Story is the author of a large number of scientific and fictional and other works, one of his novels, "Only Half a Hero," being partly founded on his experiences as a journalist in the Franco-Prussian War. Mr. Story, in his lecture, said phrenology was believed in by the masses more than by the educated. Those who had taken their education from the Universities and medical schools generally disbelieved in it, because they got drilled into a certain groove and found it very difficult to get out of it. That had been the impediment that all reformers had had to contend with. There were three principles upon which phrenology was based : first, that the brain is the organ

of the mind ; second, that the brain is composed of a number of organs, each possessing a special mental function ; third, that the skull is moulded upon the brain. The lecturer showed how Dr. Gall, about ninety years ago, discovered the science of phrenology from observing that certain boys with certain characteristics had certain cranial developments ; and how he was subjected to persecution by theologians and others for proclaiming his doctrines; so that he was obliged to leave his native country (Austria) for Paris. He referred to the celebrated Sir William Hamilton having laid down that the mind could not be manifested through the brain, and to Professor Flourens afterwards proving the contrary, but maintaining that it was a single organ without divisions, and quoted an admission by a foremost physiologist, Prof. Humphrey, that the skull is moulded upon the brain, and that the opponents of phrenology by denying this did not advantage their cause. It was objected that certain sinuses interposed in the frontal region of the skull, and that, therefore, there could be no external signs in that part of the head by which to estimate character. But for these phrenologists always make allowances. Mr. Story said phrenologists did not look for bumps and little excrescences, but at the general shape of the skull. He showed that when Professor Ferrier applied an electrode to some of the phrenological organs of vivisected animals, corresponding characteristics were manifested. Ferrier had maintained that one centre of the brain moved the arm, another the eye, and so on ; but phrenologists asserted that these organs indicated mental characteristics which led to the physical actions. At the close, Mr. Story publicly examined the heads of the Chairman and Mr C. Shakeshaft (late Vice-President of the Club), telling the former he was a man of remarkable combativeness and courage, and giving a most humorous delineation of the latter. A vote of thanks to Mr. Story closed the proceedings.—*Walthamstow Guardian.*

ON Monday evening, December 16th, an interesting meeting was held at Carr's Lane Chapel, Birmingham, in connection with its Temperance Association, when Miss Jessie A. Fowler gave a lecture on "Social Customs," Mrs. Hallowes in the chair. Miss Fowler spoke first upon the social customs of England with regard to intoxicants ; and of the efforts which were being made, by means of drawing-room meetings and other agencies to create a different feeling on the subject in society. She condemned the use of wine, &c., at weddings, birthdays, and other parties, and in sewing parties, and urged her hearers to discourage its use in every possible way. Especially was its presence to be avoided at children's parties : it was cruel as well as unnecessary, the lecturer declared, to place temptation in the way of the young and to create in the little ones a taste for strong drink. The advisability of trying to educate the doctors on the subject of temperance, and also of discouragement of grocers' licenses, was strongly urged, and an example was given of a grocer near Melbourne, to whom twenty ladies sent a letter, refusing their custom if the license

were continued. She spoke of the noble example of many ladies belonging to the English aristocracy, who had signed the pledge and taken the blue ribbon, as an example to others; and also of Mrs. Hayes, wife of the former President of the United States of America, who had the courage to banish wine, etc., from the banquets at the White House, and whose influence had encouraged many American ladies to follow her example. "If those in high positions can afford to make a stand, surely those in humbler spheres may well do the same." If not for their own sakes, those present were urged to abstain for the children's sake. In Australia, also, the drinking customs permeated society, and fifty years ago, in some places, the salaries of even ministers were paid in alcoholic drinks. In heathen countries the social customs introduced by white men had done great harm. Left to themselves, the Hindoos, North American Indians, and other aboriginal tribes were total abstainers. In conclusion, Miss Fowler expressed an earnest hope that all would do their utmost to discourage the drinking customs of society. The lecture was listened to throughout with the greatest attention and was frequently applauded. Mrs. Hallowes, in the course of a few remarks, said that at the commencement of their married life, she and her husband had determined never to place wine or intoxicants of any kind on their table; and, although they had entertained many ministers, doctors, &c., she did not think it had in any way interfered with their popularity. As for plum puddings, &c., she could declare from experience that it was a mistake to suppose that spirits were necessary to keep them. She also very earnestly urged the duty of encouraging those grocers who had no wine license.

Home-tried Recipes.

It is hoped that the following recipes may interest many families who are in daily quest of common-sense, economical, wholesome, and well-tried puddings, pies, and supper dishes, and that they may become substitutes for those most indigestible meat suppers which are so universal.—J. A. F.

PUDDINGS.

Ginger Pudding. Shred a quarter-of-a-pound of fresh beef suet very finely; add a pinch of salt, half-a-pound of flour, four ounces of moist sugar, and a dessert-spoonful of powdered ginger. Mix all these ingredients thoroughly, and put them dry into a well-buttered mould which they will fill. Boil for three hours. Turn out, and serve with melted butter made with milk.

STEAMED APPLE DUMPLINGS.

Peel and core some rather good large cooking-apples. Cut the apples in two pieces, and, after taking out the core, put a clove in each half, and place the two halves together, enclose in good plain paste. Tie up in a cloth, and steam three-quarters of an hour.

BOILED RICE.

Pick, wash, and soak a breakfast-cup of rice all night. In the morning put it in two quarts of cold water, with a large pinch of salt, and boil one-and-a-half hours before required. Do not boil fast, and avoid stirring, or the grains will not be kept whole. Eat with butter and sugar mixed, or stewed fruit.

MONDAY PUDDING.

Soak some odd pieces of bread (the crumb part) in milk until tender. Mash them in pieces ; stir in two tablespoonfuls of moist sugar, one of stoned raisins, and one of currants ; beat one egg and add. Pour into a buttered pie-dish, and bake about half-an-hour in a moderate oven.

SUPPER DISHES.

Rock Gelatine. Take an ounce of gelatine, half-a-pint of cold water, let it stand an hour, and add half-a-pint of boiling water. When dissolved, add one cup of sugar, the juice of three lemons and the grated rind of one. Strain into a dish to cool. The custard for the same is made from the yolks of two eggs, one pint of milk, and half-a-cup of sugar ; flavour with vanilla. Just before using, cut the jelly into squares and place in a glass dish. Pour over the custard, beat the whites to a froth with a little sugar, and spread over the top. Make the day before it is wanted, in hot weather.

SWISS CREAM (VERY GOOD).

Take a quarter-of-a-pound of maccaroons, or six small sponge cakes, one pint of cream or milk, five ounces of lump sugar, the rind of one lemon, and half its juice, two large tablespoonfuls of arrowroot, and three tablespoonfuls of milk. First, soak your maccaroons in a glass dish. Take the cream, the lemon-rind, and the sugar, and heat in a porcelain pot. Mix the arrowroot with the cold milk, add this to the cream, and let all boil gently three minutes—stirring all the time, after having taken out the lemon-peel. Take from the fire, and stir until nearly cold, then add the lemon juice, and pour the whole over the cakes, or over a dish of preserved fruit.

CHOCOLATE SHAPE.

Steep half-an-ounce of gelatine ; dissolve two ounces of French chocolate in one pint of milk ; boil for a few minutes, sweeten to taste—about two dessert-spoonfuls.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

M. E. H. (Rosemont).—The chief characteristics in the case of this lady are her very strong will, determination, love of opposition, and freedom of action, self-confidence and executiveness. She possesses an active conscience; is quite as good as she looks, and a little better. She is rather old mentally for her age, and should cultivate a stronger appreciation of the mirthful and beautiful. Her desire to accumulate is strong; she is systematic, very sensitive to praise or blame, can keep her own counsel, and has a mind constantly on the alert. Considerable powers of endurance are also indicated, and with proper care she is likely to live into old age. She is well fitted to fill some place of trust or responsibility, such as a nurse, or housekeeper.

Marguerite.—This lady is decidedly practical in her entire cast of organization, and neither her mind nor body can remain long idle. She is possessed of considerable bodily strength, together with much toughness, activity, and power of endurance. She walks rapidly and energetically, and is generally fond of locomotion. She is usually rather grave and earnest in thought and feeling, and might cultivate wit and mirth to advantage. She is very affectionate, reliable, and sympathetic, fond of the beautiful, both in nature and art, a keen observer, but needing to be more hopeful and sanguine as to future results of present work. Her eye for form and configuration is very correct, while memory of events and general facts is also strong. She should pay careful attention to diet; will do well to avoid foods containing rich, greasy, or oily concomitants, but may partake freely of fruit and vegetables. A more vegetarian form of diet will prove of special benefit in her case. She should cultivate the tendency to save. She does not care much for show or ornament, but prefers things good and plain. She is fitted for a practical, active, home or business life.

B. C. K. (Natal).—The photo is not a good one from which to form a useful judgment of this little lady's character. The physical and mental conditions appear however to be generally even, though in later life a more marked development of the mental over the bodily powers seems highly probable. Though the details cannot be definitely discerned, there are undoubted indications of an excellent

intellectual and moral endowment, particularly as regards the comparing, questioning, imaginative, seeing, sympathetic, and refining faculties of mind. The general memory too is at present very active, and should be carefully trained with the object of preserving a like proportional endowment hereafter. She entertains a strong desire to give away part of anything she possesses. She should be taught to gather facts, and to take special interest in the practical details of life. Due attention needs to be paid to the development of her muscular system, by means of drill exercises, and careful dieting, for though active enough at present there is an indicated predisposition to inaction later on. She is very loving, but likes her own way. Gentle influence will do much with her, but she should not be forced unduly, or will often act contrary to the expressed wish of others.

J. T. (Queensland).—This gentleman's head is indicative of an exceedingly active nature, together with a very positive cast of mind. He evinces more selfishness in getting than in giving ; will always look out for number one in business transactions, and yet manifest considerable kindness upon general occasions. He is remarkable for his power of penetrating the motives of others, and will sometimes be too suspicious of their intentions. He is gifted as a calculator, both as regards mental arithmetic and the estimate of ways and means. He is a clever schemer and planner, having a very full endowment of those powers which give diplomacy, and should guard against increasing the strength of these faculties. It will take a cunning man to over-reach him. His sympathy is stronger than his observance of, or care for, the religious. He would prefer to stop away from pious rites and ceremonies, and should cultivate the spiritual side of his nature. He is exceedingly annoyed at disorder, and would labour to make things look nice. He is quickly irritated, and does not like a lot of talking ; can be very nice to those who do as he wishes or directs, but also very sharp with those who in any way endeavour to thwart his purposes. He is not a great eater, but is a great worker ; is fond of home comforts rather than of home as a location. His eyes seem to be everywhere : put a new article in the house and he sees it at once. It is difficult to hide anything from him. As a business man, he is sharp, shrewd, foreseeing, and very exact. It would be better if he had more veneration and a better endowment of hope, as he is liable to occasional fits of gloom or melancholy. He remembers faces excellently, and recognizes handwriting he has once before seen. His interest in geography and memory of place and position is also strong, as is his ability to judge correctly of weight and size : he should be a good shot ; is quick to give a reason for what he does, and his knowledge of men is great in knowing how to take them and suit himself to them. He is much addicted to criticising others—their actions and failings ; is ambitious, and rather jealous. Excitability is rather over-strongly marked. He gives positive commands, and expects to be obeyed.

THE
Phrenological Magazine.

MARCH, 1890.

MISS AMYE READE.
NOVELIST AND LECTURER.

THE accompanying photograph of Miss Amye Reade presents a combination of superior physical and mental strength. She is well balanced in all the forces of her nature, while her entire organization is indicative of great power, equal to the accomplishment of



almost any task. She is a great worker, has full confidence in her powers, manifests intense energy and industry, while she recruits rapidly when exhausted. She is much more in sympathy with the masculine than the feminine mind, and

looks upon a truly feminine mind as an object of love. She is a true child of Nature, and must enjoy freedom of thought and action. It would be very difficult to bring her under the restraints of fashionable society. She has no sympathy with pretences, and hence puts on no airs, and makes no pretensions. She exercises considerable self-control and self-direction.

Her organization is well balanced. There is great harmony of proportion between body and mind. Her features are strongly marked, yet regular, and indicate great strength of character. There is harmony between her brain and body, and she has the will and strength to do what she has the desire to do. She can resist disease and outside influences rather easily. She is a law to herself, and feels quite equal to the task of controlling herself, for she has uncommon will power and self-reliance.

Her face indicates a strong development of all the affections and social dispositions, especially a love for children, though animals share largely in her attachments. She has great power to regulate thought and feeling, as also to give her whole mind to a subject. She is domestic in disposition, but her intellectual powers are largely represented.

Her forehead is fully developed both in the perceptive and reflective faculties, and she possesses a retentive memory of all impressions made on her mind. She sees intelligently, and makes good use of what she does see. She has plenty of wit, and good powers of imitation and mimicry. She is more forcible than copious in conversation, and, as a speaker, she will be clear and distinct in her style. Her sense of time and music are good. She has a full share of prudence and restraining power, but not so much as to produce undue hesitancy or restraint. Though possessed of great ability to imitate and mimic, yet her individuality of character is so strong that it would be difficult for her to lay it aside for long at a time.

Her character being so distinct, strong, positive, and masculine, she could not wait for something to turn up in her favour, but would rather go to work and change the order of things, as well as turn things up to suit herself. She prefers to be master of the situation, and is willing to take the responsibility of all her own doings.

She is still young and has a long life before her, and if guided by a right spirit, she will make her mark on the page of history, and exert a distinct influence in society; for she carries a strong magnetic influence with her wherever she goes.

L. N. FOWLER.

In an interview with Miss Reade, the *Women's Penny*

Paper has the following:—The author of the recently published novel *Ruby* is Miss Amye Reade. She is related to the Reade family, late of Shipton Court, Shipton, Oxon, some of whom are still living, among them, Sir Chandos Reade, who was High Sheriff of Anglesea. The Reade family have already produced more than one well-known name in literature, and its youngest literary scion is adding fresh fame to an honoured name.

I found Miss Reade in the pleasant drawing room of her flat in the Oxford and Cambridge Mansions, and was received with the cordiality and frankness which are the frequent characteristics of a fearless disposition and a warm heart. "This is my study," she said, leading the way to an adjoining smaller room, quite an ideal sanctum with two large writing tables and a huge bookcase stored with rare and early editions.

"I work often till 2 or 3 o'clock in the morning and think hard work does no one any harm. When very young I was kept well at it, and never allowed to stop. I think my training was severe, but I have never regretted it. My mother was very determined and resolute, and she insisted that those who had charge of my education should not be interfered with. She died some years ago."

"First I had a lady to educate me," continued Miss Reade, "afterwards I had a tutor, and am still continuing my studies. I was not allowed to read novels, for fear I should copy some one else's style. Indeed, I rarely opened a novel till I had written one, and then Dickens was given to me to read."

"Are you now fond of reading novels?"

"No, I am not a great novel reader. If I have any favourite reading it is poetry and old books."

"Your training, then, was with a view to your becoming an author?"

"Yes. At fourteen I was very anxious to go on the stage, and had an interview with Mr. Irving which further inflamed my ambition. But my family and friends were entirely opposed to the idea, so I turned my thoughts to literature. I attended literary classes at University College, London. I did not learn classics, except some Latin, but read a great deal of science and philosophy: John Stuart Mill, Darwin, and the leaders of modern thought. I have a remarkable memory."

"Were you ever at school?"

"No, I was never taught with girls at all, and my life has been largely spent among men. I was born at Wolverhampton in 1863, and my early life was passed in the country. I had perfect freedom to go about when not studying, and enjoyed

all kinds of physical exercise and out-door life. I dearly love natural sights and sounds, and have never spent a May in London. I have travelled much through England and have also been abroad. The year before last I was in Brittany, and shall probably publish some sketches of peasant life there."

"What are your favourite recreations ?"

"To do a good piece of work, and then to go into the country for a day, and back again to work. I am strongly in favour of museums being open on Sunday. If Gin Palaces are open why should not Picture Galleries and Museums be open too : that is what I mean to ask," added Miss Reade with emphatic energy. Presently she said, "I am intensely fond of animals, and very much alive to their suffering, all forms of oppression appeal to me for sympathy."

Miss Reade laughs heartily at some hard knocks she has had from the Press critics. "They have accused me," she says, "of being dreadfully realistic and copying Zola. I have never read a word of Zola."

THE FOWLER INSTITUTE.

HAVING for many years entertained a desire to form a Phrenological Institute, I feel the time has now come for me to do so. When the British Phrenological Association was founded three and a half years ago, I put my desires on one side to see what the united efforts of the Association would do. In the meantime, it was decided that two of my daughters and son-in-law should visit Australia professionally, which curtailed my staff of workers at home. Since their return we have felt that something more ought to be done for phrenology, and we propose to start a Phrenological Institute, particulars of which are now laid before the readers of the MAGAZINE.

I am extending and enlarging my present premises to comprise a lecture room that will hold from fifty to sixty people, class rooms, library and museum, consultation, book and publishing rooms ; all the above to be opened by the 1st of March.

Fee for membership 21/- per annum (in advance), the year to commence at any time.

This fee includes the PHRENOLOGICAL MAGAZINE * for one year, admission to museum, library, and to weekly lecture in the lecture room ; country members to have in addition the use of the circulating library, subject to rules. A meeting of

* Anyone wishing to become a member of the Institute having paid MAGAZINE subscription for the year will be allowed the difference.

members will be held monthly, for the purpose of reading papers and discussion. The session lectures will be given in a hall near the Institute. Members will be charged 5s. extra to each of the two session courses. The Spring session of lectures will be given by my daughter (Miss J. A. Fowler) and myself in Exeter Hall, commencing Feb. 18th, and extending into April. In the Autumn session I hope to arrange with other lecturers, so that we may have a varied and interesting series.

Examinations for diploma will be held annually, upon the following system :—1st. Printed question papers ; answers to the same in writing from memory, and on the Institute premises, at the time appointed by the examiners. 2nd. An additional practical examination of heads, crania, &c., before the examiners. 3rd. All students for diploma to furnish such references of satisfactory moral character and general education, and also to submit to such personal phrenological examination, as may be required to in every way satisfy the examiners.

All students holding any certificate in physiology will not be subject to further examination in this branch.

A special examination will be held for school teachers and ordinary students of phrenology, for which certificates will be granted according to proficiency ; such certificates will be entirely distinct from the diploma granted to thoroughly qualified Fellows of this Institution. The aforesaid diploma shall be upon vellum, bearing the seal of the Institution and necessary signatures, and conferring upon the holder the title of Fellow.

I further propose to sub-divide all those connected with the Institution into four classes, as follows: 1st class, Holders of the Diploma of this Institution by examination to be called Fellows ; 2nd, Associates ; 3rd, Life Members ; 4th, Ordinary Members. The above four conditions of membership are open to the world, subject (in the case of foreign members) to one or two conditions.

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FOR THE STUDY AND DEVELOPMENT OF HUMAN NATURE,

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Members' Meeting, second Monday in the Month.

Members' Tickets ready 1st March.

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MISS FOWLER,

4, Imperial Buildings, Ludgate Circus,

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PHYSIOGNOMY AND EXPRESSION.*

THE fourth volume of the enterprising "Contemporary Science Series" presents, according to the editor's and author's purpose a balance-sheet of modern research and opinion on the subject of physiognomy. The author, Paolo Mantegazza, is a prolific writer, best known for his three treatises on the physiology of pain, pleasure, and love, and well qualified by travel, erudition, and experimental research to speak with authority on that department of anthropology which has to do with expression. The foundations of the science of physiognomy seem to have been laid by Aristotle but were soon covered by an insecure chaos of popular and magical face-lore, from which hints of stable structure did not appear till early in the 17th century, when Dalla Porta tried

* Physiognomy and Expression. Contemporary Science Series. By Paolo Mantegazza. 8vo. London (Walter Scott); pp. 327; 8.

to show that "physiognomy was born of natural principles," and was due to temperaments, not to the stars. In spite of the "impious analogy" of one of his plates where the face of Domitian is placed opposite a skate, Dalla Porta "ended his days surrounded by universal veneration, and was buried in a church." After this frank physiognomist came "plenty of authors, plenty of volumes, and plenty of plagiarism," until Lavater, towards the middle of the 18th century, inaugurated a new era in his immortal "Essay on Physiognomy, destined to make man known and loved." But this poet, painter, and pastor was inspired rather by love and hope than by the scientific method. Though he observed, drew, and generalised with brilliant skill and sympathetic insight, his "Physiognomical Bible" was hardly a scientific work. The real science began with Camper (1791), who first appreciated the value of the facial angle as a criterion of human rank, and started that anatomical school of physiognomists in which our own Charles Bell held a foremost place. In 1872, however, the study of expression made a sudden advance, for Darwin, in his work on the "Expression of the Emotions," linked human to animal physiognomy, and illustrated the frequent reasonableness of both. Now we have Mantegazza uniting Lavater's enthusiasm and Darwin's analysis with admirable results.

All will agree with Mantegazza that the human face is one of the most interesting realities in the world. Its static or anatomical characters constitute "features," which are of so much importance in connection with race and degree of beauty: its mobile activities in response to nervous and sensory excitement constitute "expressions," which so largely influence our judgments as to health, intelligence, and moral worth. It is obviously necessary to start with a careful analysis of the face and of all the living material which expression makes yet more alive, and therefore the author leads us from forehead to mouth, from eyes to chin, not forgetting moles and wrinkles, on the last of which he contributes the "germ of a monograph" which will develop by and bye. Let us live in hope. Tearing himself from eulogies on heavens of hair and mouths of fascination, Mantegazza hints in a chapter on the aesthetics of the face at some compromise between the divergent theories of beauty. Plato called beauty "the splendour of truth;" Voltaire observed that "beauty to the toad is his mate;" Mirabeau asked whether it were not "subject to the caprices of the senses, of climate, and of opinion;" while our author would include the three views in a triangle, the stability of which will be disclosed in a future work to be called "*The Epicure.*" Expression, however, is beauty or ugliness in

motion ; it is the result of an extra current associated with emotion and thought. Its wealth is in close relation to the intensity of the sensory or nervous excitement, and may be measured by the force of contraction in the expressive muscles, by their persistency, by their diffusion over an increasing area of face and body, and by the rapidity of alternating contractions and expansions. Expression is often only a sympathetic and necessary correlate of other activities, but it may replace or complete language, it relieves or augments nervous excitement, and has often a protective or defensive value. Dividing expressions into defensive and sympathetic, Mantegazza distinguishes those of sense, passion, and intellect ; catalogues their simple and compound, fleeting and persistent, forms, and shows how these vary with sex, age, and race.

In his detailed account of the different expressions, Mantegazza begins with the physiognomy of pleasure, and leads us from the faint ripples of smile and the "dawnings of laughter" in animals, to the waves of good humour and sunshine of joy which play on the human face. We are told that the negroes of the Upper Nile rub their stomachs when they see beautiful glassware, that Australians pretend to chew when they admire horses and oxen, that Balzac laughed like a Maori ; and we are reminded of a young child's naive definition of good humour as "laughing, talking, and kissing." It cannot be denied that our author is often very funny in his illustrations, witness this sentence : "Just as a cat bristles up her fur and inflates herself to appear larger, and to frighten a dog who threatens her, so a man full of pride, satisfied at the rank in which his eye finds itself, inflates his cheeks, breathes frequently and powerfully, sticks out his paunch, if he has one, the anterior part of his abdomen if he is thin, holds up his head, walks noisily," and so on. We wonder what Mantegazza's expression was when he wrote this ? Another chapter, again a condensation of a previous treatise, discusses the expression of pain. The expressions which seem to release the nerve centres from excessive tension, or to struggle against the intolerable : the positive relief given by sighs, groans, and tears ; the paralysis and violence of grief ; the characteristics which stamps simulated pain as a falsehood of expression, are among the subjects discussed in this connection. *Apropos* of the last, everyone will corroborate Mantegazza's statement that the eye is most reluctant to lend itself to lies, and that Job Trotter's command of "waterworks" is exceedingly rare, at least among men. Some general conclusions of great suggestiveness are ventured ; thus intellectual pain and visual pain—that of the most intellectual sense—have analogous expressions ; so

auditory pain and that of the affections, olfactory pain and those of contempt and offended dignity, gustatory pain and the numb anguish of wounded self-esteem, are expressed in curiously similar ways. From pleasure and pain we pass to love and hatred. The expressions of love and benevolence are naturally associated with the desire to draw near to what we love, to caress what we care for, but this combines in a complex way with other elements, such as imitative sympathy. Here is discussed the reciprocal influence of faces, wherein we are subtly changed into the image of what we love ; and here too we find descriptions of the hearty English hand-shake, of the Malay's amatory nose, and of kisses which have echoed through centuries. Before he dies, this ambitious author wishes to write yet another book (he has already mentioned three) on the "*Physiology of Hatred.*" The expression of hate, antagonistic to that of love, depends upon our shrinking from what we dislike, from what pains or threatens us. Here is discussed, for instance, the sardonic smile, which Mantegazza does not quite agree with Darwin in regarding as a survival of the time when the canine tooth was exposed by the snarl in preparation for more directly offensive activity. The peculiar laugh of hatred ; the respective demerits of rage and rancour ; the sanguinary voluptuousness of cruelty are among the items in a chapter of horrors.

So we might follow Mantegazza through his account of the expressions of pride and modesty, fear and suspicion, thought and desire, but a summary becomes tedious, and sampling scrappy. In regard to thought, however, it is worth noticing that while Darwin regarded the familiar wrinkling of the eyebrows partly as a survival of the early discomfort of thinking, and partly as a legacy from remote ancestors who required to keep a strained and sharp look-out for prey and foe, Mantegazza interprets it as a sympathetic accompaniment of adjacent activity, and probably without direct utility. Those who "scratch the head of thought with the nails of despair" may find comfort in the supposition that they thereby facilitate cerebral work by the peripheral excitement of nerves, but they will not thus attain to "the fiery indefinable look of genius which is never" (we should say hardly ever) "met with in ordinary men, and in which seem to be concentrated all the enthusiasms of life, all the splendour of light, all the energy of thought and will." If we have not genius, however, we hope at least to be ranked as intelligent, but behold the characteristics—large, beautiful oval head (alas, ours is round like a bullet) ; wide, high, and prominent forehead (this has always been our treasured belief) ; eyes large rather than small (now

we feel sure we are intelligent) ; ears small or medium and beautiful (certainly not ugly) ; face small and not very muscular (what a careless generaliser Mantegazza must be) ; jaws not very prominent (well, not very) ; chin large and prominent (yes, decidedly large). There must be many exceptions to these characters, and even if the desired evidence is lacking in regard to feature, it may be abundant in regard to expression. The intelligent expression is especially marked by vivacious eyes in which "centrifugal energies" are constantly disengaged, and also by the mobility and tonicity of the muscles.

On racial expression our author has much to say, but generalisation is difficult. "In Europe there is an expansive and a concentric expression. The first is found in Italians, French, Slavs, and Russians ; the second in Germans, Scandinavians, and Spanish. There is also a beautiful expression full of grace, that of the people of Græco-Latin origin ; and another hard, quite angular, without roundness, that of Germans, English, and Scandinavians." Of the poor Scandinavians it is said that "they walk in angles, smile in angles, sit, rise, and talk in angles ; and these angles are acute." "The expression of women is very intense, poor in peculiarities for intellectual emotions, rich for affective and painful emotions," nearer that of children than that of men. In conclusion the author does not forget the allied phenomena of gestures, which he well defines as "all those muscular movements which are not absolutely necessary to complete an act of psychic function, but which accompany it by sympathy of nervous influence." "Those of the Latin race are gracious and voluptuous, those of Anglo-Saxons rigid and angular, those of the highest Oriental races majestic and Olympian, those of negroes and Australians ape-like." In this connection there are some interesting notes on the inhibitory influence of clothing.

The book is a rich storehouse of observation and erudition ; the historical mode of treatment contrasts fact and fiction in every chapter, sometimes we think dwarfing the wheat by the copiousness of the chaff ; the numerous analytical tables keep our heads clear amid the maze of short paragraphs ; and the work is delightfully concrete from beginning to end. It would be unfair to blame Mantegazza for the rarity of secure generalisations in the science which he expounds, yet surely we might have had more of the evolution of expression for instance, more careful comparisons between the animal, the infantile, the childish, the savage, and the civilised physiognomies. It would have been better to replace the score of

Latin quotations (which, though we understand, we prefer to have translated) by some account of the relations between nerves and facial muscles, or by more detailed description of the mechanism of expression. We could have spared some of the ecstatic eulogies, and taken instead some more precise information as to the influences of climate and surroundings, habit and everyday work, on the expressions of races and castes. The work would also have been the better for pictorial illustrations scattered among its pages, instead of being restricted to the eight plates at the end.

Grant Allen has recently told us that he prefers his science and his champagne as dry as he can get them, but as he himself caters quite otherwise for his readers, he can hardly cavil at Mantegazza's lively ways. No more shall we, for even if the vivacity sometimes becomes too careless, and such "glowing lines" as those on the hair sink to a bathos of nonsense, it may do us good to see how an Italian savant writes a book full of smiles, quips, and cranks, and not without ecstatic clapping of hands. It will do us no harm, nor diminish the real value of the book, if we are forced to smile when we read, for instance, that "the oyster itself has its expression of pain when we sprinkle it with lemon juice ; but from this to Niobe or to the Laocoön there is a long interval ;" or if we laugh when we learn that "where the man ends and where heaven begins, the wind agitates a forest which is no longer flesh, and is not yet brute matter ; a frontier where our eyes never cease to seek sensations, and where a dawn of ever-changing and always beautiful forms moves and seems to live. In man is wanting that infinite subdivision and multiplicity of the vegetable world, and nature has compensated him—in his hair." To all who read, as they must read, the book of the human countenance, Mantegazza's essay will prove interesting and valuable, showing the complexity and yet orderliness of our transient expressions, discriminating between the fact and fancy interwoven in our popular conceptions, and demonstrating the reasonable naturalness of those extra activities which we in the stern North are apt to repress. The physician, accustomed more than most men to read the story of a face, will find much that is suggestive, and not least the descriptions from Polli of pathological (*e.g.*, consumptive) expressions ; while the artist, if he is humble enough, may gather much from this lively volume that will serve to make his observations more definite and accurate.

GREATNESS AND GOODNESS.

LIFE is a reality. The imagination serves only to paint and embellish it. Faith, in the absence of positive knowledge, may serve as a poor guide to it. Still, we all live by eating and drinking, and dissolution is the destiny of the race, which none can avoid. And we can only become great and good as we go along. The course of man through this world varies with his native gifts, and these may be strong or weak, many or few, according to his origin and the circumstances attending his development. A person is liable to go to opposite extremes at different periods of his life, and thus to contradict himself.

That beautiful vine, so well trained upon the wall, has been frequently trimmed, and so forced to grow in a certain way ; and it needs to be continually trimmed and trained yet : for doing the work once is not enough—either with vine, with horse, with army, or with child. Similarly of the person who wishes to be good ; constant effort, watchfulness, struggle, and uphill work is necessary. It is not easy work to be good or great. The army which we see performing its manœuvres with great precision and apparent ease has previously gone through a vast amount of discipline and drill. The horse which performs so well has been through a vast amount of training. The family of children so admired for their good behaviour has cost vast pains and labour to the mother and teachers.

In many respects, the human races appear to a casual observer to be on a par with each other ; especially when fed, clothed, and educated alike. Much that we see of the different races in their native condition is external and the result of circumstances. All the conditions of human existence and its wants are similar. What therefore is to hinder all men being good or great, or both ? Man the world over is so constituted as to be obliged to put forth effort in order to be either good, or great, or bad. The mind is in sympathy with both worlds—hence the struggle. Some minds are more in sympathy in one direction, others in another.

Besides, mind has to be developed, brought into action and trained to its work ; and to train the mind in one direction does not develop it in another. The chief necessity is to train it for the sphere in which it is to act ; and it is very difficult, if not impossible, to make it grow equally in its every department. Circumstances frequently make men do what they have no desire to do and no aptitude in doing, and prevent them doing what they not only have a desire but a talent

for. Hence many appear under great disadvantages ; others in the best possible light : without much reference to real merit. Some people prevent themselves being good or great by a perversion of their powers. Most great men live much ahead of their times and cannot be appreciated until they are dead. They are starved and persecuted while they live ; and monuments are raised and money spent in eulogising them when they can get no benefit therefrom. The names of Columbus, Dante, Galileo, Howard and many others at once suggest themselves.

Goldsmith's "Vicar of Wakefield" was sold for a trifle to save him from the grasp of the law. Faraday left his family dependent on charity ; and a relative of his in New York used to beg aid of me on the score of his genius. Very many great men have made others very rich, but have died poor themselves. This is particularly true of inventors.

The most favourable physical and mental organization for the attainment of goodness is the vital mental temperament, with a predominance of the social and moral brain. Those most favourable to greatness are a predominance of the motive and vital, with the intellectual and executive brain. To be great one needs to be healthy in body and mind ; to be strong and muscular ; to have a well-balanced organization, a strong will, great perseverance and great concentration of thought and feeling, great energy, great physical and moral courage ; to be quick to perceive and as quick to act ; to have a large comprehensive mind and originality of thought ; to be industrious ; to learn to turn everything to account, to labour with a definite object in view and to stick to it until it is accomplished. To be "great in small matters" requires perhaps less brain and more activity.

Goodness is generally the result of great effort, and struggles with passions, propensities, and circumstances. Greatness is frequently the result of circumstances or of accident. Goodness is the outcome of gradual growth and patient culture. Greatness may be the result of one effort only.

Metellus, the Roman who would not sell himself to corruption as all the other senators did, said that "To do ill is at all times shameful : to do well when it may be done with safety is not uncommon ; but to do well in the face of danger, this is the true characteristic of a really great and good man."

Some persons are apt to get credit for too much greatness or goodness, as others for too little. Few get their real honest desert. Many live on the brains of others. The characters of many people are like garments too large or too small : they neither fit nor feel comfortable ; they get soiled,

ragged, and out of fashion. So do characters. As it is unwise to strain a pattern in order to make a larger garment, or to make a garment too large for the person, so it is unwise to try to be greater than one has the natural ability to be ; and it is reprehensible to fail to be as good and great as one is naturally qualified to be. Every man has his own pattern, by which he should be guided.

Alexander was asked why he did not strive in the races as his father did, for the encouragement of others. He replied that he would if he had kings to deal and strive with. He asked Aristotle how he could better improve. The sage replied that he should remember that so great power was given him not to injure, but to benefit mankind ; that he should set bounds to the passion which he knew he was subject to ; that it was below him to fly into a passion with his inferiors ; and that he had not his equal anywhere to fly in a passion with.

A man out of his natural sphere fails to show his real character, and appears to a disadvantage. A self-made man shows his natural character as well as a cultivated one. A man of genius may have many phases of character, while those who have not genius possess but few.

Titus was great at one period of his life, and both good and great at another. Left by his father Vespasian to subdue Judea, he, in doing so, took Jerusalem at the expense to the Jews of 1,100,000 lives, 70,000 prisoners, and the complete destruction of the temple and city, which had been spared by five others who had taken the city. Before he became emperor he was dissolute, immoral, and intemperate. On his accession his conduct and his entire course of life underwent a change. He became generous, honest, temperate, and liberal. He went about doing good ; gave his entire fortune in aid of the sufferers at Pompeii and Herculaneum, and lost only one day in which he was not useful to some one. Bunyan, St. Augustine, St. Paul, and thousands of others have become good after having lived wicked, unprofitable lives ;—becoming as good and useful as they had before been bad and immoral.

But it is easier to be great than good. To be great we have to contend with an enemy without. To be good we must contend with one within. On the one hand we have to overcome great obstacles, but we can get others to help us. On the other hand we have to fight little evils and besetting sins, which we must do all by ourselves, even contending against the influence of others. To be great we must do bold things in a bold way. To be good we need to do little things quietly. Sometimes one act puts goodness

beyond a man's reach. Severity and cruelty are apt to be connected with acts of greatness. Gentleness and mildness go along with goodness. Greatness is connected with a public life. Goodness is more of a private and personal quality. Good men more often become great than great men become good. A man of the world may be great ; but it takes a man of God to be thoroughly good. Greatness has its rewards in this life. Goodness, both in this life and in the life to come.

In becoming great we are liable to make enemies. In becoming good one is more sure to make friends. To be great we must take the advantage of circumstances and strike when the iron is hot. To be good we should begin young and grow up to be so without becoming bad. On the one hand we become masters ; on the other servants. Good men serve and go about doing good. Great men command and make others serve them. Good men teach the ignorant and show them a better way. Great men are rather inclined to take the advantage of other men's ignorance. Good men protect the weak. Great men make servants of them. Goodness comes from within : from thoughts, feelings and desires, resulting in life and actions. Greatness is the consequence of bold actions, great energy, ambition, enterprise and perseverance. A great man may be a tyrant, but it takes something more than a tyrant to be a good man. But there are many kinds both of goodness and of greatness.

There are great differences between one kind of greatness and another. There is the greatness of such as Hercules, Samson, and Commodius, for strength. Of Garibaldi for self-sacrifice, Shakespeare for versatility of mind, Howard for disinterestedness, Washington for dignity, Lincoln for honesty, Alfred for industry, Wallace for love of country, Buonaparte for aggressiveness, Crœsus for wealth, Ahasuerus for power, Belshazzar for boasting, Caligula for bloodthirstiness, Nero for prodigality, Alexander for courage, Cæsar for ambition, Moses for meekness, Socrates for criticism, Zeno for originality, Galileo for invention, Solomon for wisdom, David for inspiration, Cicero for oratory, Pericles for statesmanship, Abraham for faith, Jonathan for friendship, Joseph for virtue, William Penn for mildness, and so on.

Goodness as a whole implies purity of life,—elevation of mind, liberality of thought, largeness of soul, freedom from morbid actions and conversation, a catholic spirit to labour for the welfare of the community without reference to sect, nation, or condition.

Some are good because they have no special capacity to be

bad, and cannot enjoy or indulge in any excesses. This is a negative sort of goodness, and without much merit. But when a person who has passions and a powerful constitution, and habits of indulgence, breaks away from them and devotes himself to doing good, as Titus did, there is active virtue.

Some have every opportunity possible of being bad, and yet take the opposite course. Marcus Aurelius was one of these. Other emperors conquered nations by the sword and ruled them tyrannically. He conquered them by goodness and ruled them by love; for nations came of their own accord and put themselves under his control and government.

Special goodness comes from the exercise of particular faculties of the mind, such as honesty in Aristides; honour, honesty, and patriotism in Metellus; and in his son, called Metellus Pius because of his devoted love to his father when in exile. Such, too, is devoted affection, as in Jonathan, who made so many sacrifices for David, his rival. Or, kindness, as in John Howard, whose sympathies for the unfortunate prisoners led him to spend his fortune and his life for their improvement. Sympathy was the cause of his marrying his first wife; because she was so kind to him when he was very dangerously ill. He suffered much and in many ways for others.

There are many undeveloped great and good men. Most men stop short of a full development of the mind. They live too much in the base of the brain and the animal mind, failing to finish the second and third storeys. Only if there be strong desire, great talent, burning genius, or overflowing sympathy, will they break through all barriers and stand out in bold relief: for all strong desires will find a means to gratify themselves. The hungry will get food somehow. But greatness is not always where it should be—at the head of the Government; neither is goodness always in its proper place—at the head of the Church.

L. N. FOWLER.

EDUCATION.

IF we turn our attention to the systems of education in vogue in our schools, both higher and elementary, and test them in the light of the principles laid down in my previous articles on this subject, we shall find much to condemn.

The greatest defect in both is the pernicious system of

cramming for examinations which is so generally practised. The effects of this are deplorable ; but they have been so often pointed out, that I will not dwell upon the subject, except to say, that it resembles a method, practised by some people, in gathering poultry for the market. I am told that the unhappy birds are firmly attached by the feet to pegs standing out from a revolving frame, and that, at stated times, the machine is made to revolve ; and, as each bird passes before the operator, its mouth is forced open, and a certain amount of prepared food mechanically injected into its stomach.

There are, however, two defects in our educational system of special importance. The first of these is our system of spelling—should I not rather say, mis-spelling ? From an educational point of view the system is utterly bad. In the first place, it is illogical, and, being so, instead of being an aid to the development of the power of accurate thinking, its effect upon the mind of the young must be to foster an illogical cast of thought. Why so ? I may be asked. Because the mind of the child naturally expects that there shall be a correspondence between the written form and the correct pronunciation. Moreover we begin to teach a child spelling with words which are spelt phonetically. The child instinctively applies this system to other words, and is wrong. As a consequence the mind of the child becomes impressed with the idea that to be logical is not always to be right. Now what can be said in favour of a system of education the direct result of which is to foster an illogical cast of thought ? Consider, moreover, how much useless labour is required, and what an expenditure of temper, on the part of both teacher and scholar, in order to acquire what is called the ability to spell correctly, and we shall perceive the immense advantage which would accrue from a reform in this matter.

As to the objection made by some to such a reform that it would obscure the derivation of words, it is like saying that we ought never to pull down an old building in order to replace it by one of a better plan for fear lest, by so doing, we should lose sight of the more ancient system of architecture.

But would it obscure the derivation of words to spell them phonetically ? Not to the learned, for they would be able to trace each word through all its forms, ancient and modern ; and not to the unlearned, for they never knew it. You might as well talk of obscuring the light to a blind man. Moreover, it would not be difficult to show that the modern spelling of words often obscures the derivation. Certainly it is to a great extent the cause of a corrupt pronunciation of the language.

But even if the contention were true, it ought not to avail against the immense saving of labour to the young and to their teachers which would accrue from the reform, to say nothing of the question of pounds, shillings, and pence, of which I will speak presently.

And now I would ask the question, Why do we adhere to our confused, irrational system of weights and measures, a hotch-potch made up of fractions of goodness knows how many systems,—and to our unscientific arithmetic? All other civilized nations, including our own colonies, have rebelled against both, and have adopted a uniform decimal system; and yet we adhere to our antiquated methods year after year, in spite of the loss of time, and the immeasurable amount of utterly mis-spent energy, which it entails upon the rising generation and upon their teachers. Why do we not have mercy upon our children? Why not upon ourselves? And this brings me to another point.

There is a great talk continually going on as to the need of some improvement in our educational system, in order to make it equal to certain Continental systems, which are said to produce superior results. At the same time we are continually hearing of over-pressure in our schools, and of the need of greater time and attention being devoted to the physical well-being of our children. How can we satisfy the two demands? The one requires more time and greater efforts for intellectual culture, the other more time for recreation and physical culture. Give us a system of phonetic spelling, such as, like the Italian, can be learned almost without appreciable effort. I dare venture to say that the time gained will be equal to one hour a day for the whole time spent by a child at school up to the age of 14 or 15. At all events, not only every teacher, but every thinking person, knows that the time saved will be very great; and that there will also be an immense saving of fret and worry on the part of both teacher and scholar, which cannot be measured by time, and which will be greatly to the physical advantage of both. The time thus saved could be given, if you like, to gymnastic and other exercises useful for the development of physical health and energy.

And now as to the saving of time which would result from the adoption of the metric system of arithmetic,—a gain almost incalculable. Consider that if this system were adopted, when the first four rules had been learned, there would be for ordinary arithmetical purposes, little more to learn beyond the mere application of these rules. I should say that at least one-third of the whole time spent in school

up to the age of 14 or 15 would on the average be saved for other purposes. Let this time, which I feel sure I have understated, be spent in producing, by rational studies, those higher and better results which are desired, by the pursuit of studies which are quite beyond the reach of boys who leave school at the age of 14 or 15 merely for lack of time.

In speaking of the time which would be gained by these two reforms I have only mentioned the time gained in the pursuit of the two studies in question; namely, spelling and arithmetic. But time would be gained in other studies also, notably in those of reading and writing. The gain in learning to read is patent to all at first sight. The chief, almost the whole difficulty would be removed. As to writing the advantage is not so easily seen; but when we consider that spelling is to a great extent learned by dictation lessons, and that from the necessity of the case in the dictation lesson the writing of the pupil cannot be much attended to, we shall easily understand how it must happen that, to a great extent, the progress made by a child during the writing lesson is neutralized by the ensuing lesson in dictation.

There is another aspect of this question which I will mention before I conclude. I have already alluded to it. It is the money question. This is a question for School Boards and ratepayers. Are we not throwing away, to say the least of it, thousands, perhaps millions, of money annually in teaching things which are not only useless from an educational point of view, but positively injurious? If we reform our spelling and our arithmetical systems, can we not educate our children to quite as high a point as that to which we educate them now, with a much less expenditure of money, at the same time making far less demands upon their time, energy, and patience, than we now make? And if we are willing to continue to spend the money we now spend, can we not get for it something far more worth the amount of our expenditure? I feel sure that all these questions could be answered in the affirmative.

BRITISH PHRENOLOGICAL ASSOCIATION.

AT the general meeting of the British Phrenological Association on Feb. 4th, Mr. Fowler's offer in connection with the proposed Institute was considered. Mr. Story occupied the

chair. The Institute Scheme and amendments, as well as letters in response to request, were read by the Hon. Sec. of the Institute Scheme, Mr. J. Melville. The following is a digest of the letters :—

Mr. A. Morgan "heartily coincides with the scheme."

Mr. Coates, Glasgow, agrees with Mr. Fowler's idea of graded membership, style and class of examinations, and says, "it accords with what I have urged in connection with the British Phrenological Association since its foundation," and he knows of no reason but indifference why they have not been adopted. He "regrets the scheme was not inaugurated before the British Phrenological Association was formed, but is now opposed to its dissolution."

Mr. M. Ullrich, Herne Bay, is "warmly in sympathy with the idea."

Mr. Kyme, Leeds, says, "I think the scheme is a right one."

Miss Shaw, Northampton, "trusts the scheme will be adopted, and be earnestly and heartily supported."

Mr. Gray, Folkestone, is "in favour of the scheme," and offers several suggestions regarding the diplomas.

Mr. Tompkins, Forest Gate, says, he "thinks we cannot do better than help to carry out the scheme." He offers suggestions.

Mr. Dutton, Nottingham, is "in favour of the scheme, and thinks it practicable and worthy of consideration, *pro tem.*"

Mr. Oliver, Yorks., thinks "the scheme practically carried out will supply a long-felt want, and trusts it will meet with the approval of all the members of the British Phrenological Association, especially those residing in the metropolis."

Mrs. Winterburne thinks "the scheme to be feasible," and makes suggestions.

Mr. E. Westmorland, Carlisle, "heartily endorses the whole scheme, especially that portion of it which refers to examinations for diploma."

Mr. Angold "wishes it all success," and suggests "the advisability of allowing country members the benefit of the library on their paying carriage of books."

Miss Patenall, Hastings, says, "so far as she has had time to consider it, the scheme commends itself as an admirable one, and comes before her as something urgently needed."

Mr. Eli Ward thinks "the scheme is very good," and gives some suggestions *re* country members.

Mr. Thompson, Dewsbury, thinks "the scheme is just what is wanted, and will prove a great blessing to every phrenologist."

Miss Oppenheim, London, "approves of the scheme," but "objects to the 4th clause."

Mr. Ashley, London, gives his "hearty support to the scheme."

Mr. Hatfield, Bradford, says, "I quite approve of the plan suggested."

Mr. Clackitt is "glad to see a prospect of a Phrenological Institution being founded on a basis likely to uplift phrenology."

Mr. Craig : "To sustain a wider influence, I think a Council or Directory should govern a Democratic Institute. The acquisition of a Diploma of the Institution should be highly valued."

Mr. F. C. Everitt, London : "I trust your amendment was carried unanimously. On the lines you have indicated, the Phrenological Institute would be a boon to many who are thirsting for knowledge on that and kindred subjects."

Mrs. Proctor, Liverpool : "I will do what I can for the success of the Institute."

The Chairman : The discussion on this important matter is now open. I shall not presume to make any remarks upon the scheme at present, but call upon Mr. Fowler.

Mr. Fowler said that he had now an increase of business to attend to, which necessitated his engaging other premises. He had looked over several, but had not up to the present found anything suitable ; and as the lease of his present rooms expired in about six weeks' time, there was not much time to spare. If he did not succeed in finding suitable premises elsewhere, he should engage other rooms in Imperial Buildings ; and by so doing he would be in a position to carry out the scheme which he had submitted to the British Phrenological Association for discussion. Mr. Fowler also mentioned that the British Phrenological Association had been in existence about three and a half years, and up to the present time had done comparatively nothing. He thought it was about time they did do something one way or the other, and he suggested that he and the present British Phrenological Association might work together, and thus further the interests of phrenology, which cause he had laboured for nearly all his life. He said : "In proportion as we all work together, something good will be done in favour of the cause of phrenology. It is too sacred a cause, too important, and has too much to do with humanity, to be dragging along with nothing specially accomplished. I am glad to see so many in favour of the scheme which has been presented. It shows spirit in that direction.

Let us see what can be done to raise phrenology higher so as to command more respect."

Mr. Webb followed, but his remarks were of a personal character and too wide of the mark to put in full; he was not in favour of the scheme.

Mr. Owensemith: The scheme as a whole does not commend itself to my judgment. I believe the name at the head of it will carry much weight everywhere. I wish we could discuss this scheme apart from Mr. Fowler and forget that there is any personality mixed up with it; regard it as a scheme on its merits. I do not believe in personal schemes, and yet it is an extremely delicate subject, as Mr. Webb pointed out. I regard the scheme however as a step in the right direction.

Mr. Brown: In the first place I think we must be thankful and grateful to our grand old man for his trouble and care with the scheme. Many of you know that we have had meetings endeavouring to get a scheme together. Mr. Fowler has now given us what we want. He knows what phrenology is and what we want. I have no doubt whatever that if we accept this scheme on faith it will work admirably. There may be many points which may be mended as we go on. I am satisfied that if we make a start on the lines laid down, we shall not go wrong. Mr. Fowler is good for many years. I have faith that he will not leave us till he has seen this scheme in working order. I move the adoption of the scheme.

Mr. Warren: I do not see much difficulty in the acceptance or not of this scheme. We are agreed that the Association has not done quite the work that it should have done; but we do not want to dissolve. We cannot accept this scheme, it is too personal. Mr. Fowler has always endeavoured to help us along; and after we have gone on wanting rooms, etc., and coming to no definite conclusion, Mr. Fowler has come to our help and offers us the assistance we need. His scheme gives us lines to go upon, but we do not want to break up the Association. It is better that we should go on as we have done than have a one-man government. Mr. Fowler takes all responsibility, and it is right he should take all the government.

Mr. Hollander: It appears to me that the first question is not whether we will adopt the scheme or not, but whether we are prepared to dissolve. I think the Association was got up with great difficulty, has lived, and might continue. After we have dissolved then the question, "Shall we become members of the new Institution?" would be open to us. The responsibility being undertaken by Mr. Fowler, on joining you become members of an individual not of a society.

Mr. Fowler will be the leader of the Institution, with its rules, examinations, and classes, and the whole thing is to be carried on on good lines : but I want to know who are to be the responsible trustees of it.

Mr. Hall : I think this scheme shows Mr. Fowler's philanthropic spirit. I do not see a word in the scheme in the direction of merging the Association into it, but I do see that members of the Association may become members of the Fowler Institute, and if the British Phrenological Association continues, there is no reason why its members cannot also be members of the Fowler Institute. Mr. Fowler is the veteran phrenologist, and we all know that his name stands highest, and we feel the warmest interest in him, and wish to help him. I see no reason why there should be any antagonism.

Mr. Morrell : With Mr. Webb I feel this is a very delicate subject. Our Association is on broad lines, and is governed by its members. If we had no such Association, I should be delighted to join this Institution, but our Association seems to have got a firm footing, working on universal lines, and it is too much to ask us to throw down the reins straight away and become members of a private institution ; and I do not think it practicable for the two Associations to work side by side. The question then is, "Shall we dissolve ?" I move that a committee be appointed of eight individuals who shall meet immediately and report to a meeting in a fortnight's time.

Mr. Story : It is not in our power to dissolve if we would. Whatever we do, we cannot pass a resolution to dissolve the Association. The motion that Mr. Morrell has put before us is the only thing practicable for us to-night. Mr. Fowler says we must not delay. Can we, without accepting the scheme, say to Mr. Fowler, we will do all for the scheme that we possibly can ; we will give as much of our funds as we can, if Mr. Fowler is willing to let us certain rooms, let us have our *locale* with him ; and when his scheme is fairly floated, the members of the Association to have certain concessions or privileges—*i.e.*, for a certain sum annually. Mr. Fowler has not got his museum and library without infinite cost and labour, and we should pay for the use of it. It would greatly benefit the Association. That is the way in which you can accept Mr. Fowler's scheme. We see the advantage of it, and we commit the Association to support it. Now, with all the desire in the world to aid the scheme, I cannot, as a practical man, see that we can go further.

Mr. Morrell's proposition having been seconded and put to the meeting, Miss Baker and Messrs. Brown, Cox, Hollander,

A. Hubert, Morrell, Piercy, and Webb were elected, the officers on the Committee being *ex-officio*, viz., Messrs. Fowler, Story, Warren, and Melville.

The adjourned meeting took place on Tuesday, the 18th ult., Mr. Webb in the chair. Mr. Warren read the recommendations of the Committee elected to consider Mr. Fowler's proposal respecting the Institute. They were to the effect that, whilst the Committee could not recommend the Association to dissolve for the purpose of joining the Institute, they proposed that (1) the Association should endeavour to arrange to rent a room for the purposes of the Association from Mr. Fowler; (2) that they should see if an arrangement could not be come to whereby, in consideration of a payment by the Association, members might enjoy the use of his collection; and (3) to see if an arrangement could not be made by which the Association should be enabled to supply the MAGAZINE free to the provincial members. Mr. Story reported that Mr. Fowler would duly entertain the first proposition. On the motion of Mr. Story, seconded by Mr. Dillon, the Council were empowered to arrange terms with Mr. Fowler for the use of one of his rooms for the Association. It was further resolved that the Council should see if any arrangement could be arrived at by which the members of the Association could benefit by the proposed Institute. A vote of thanks to the Chairman closed the proceedings.

PRACTICAL PHRENOLOGY.

By JAS. COATES, PH. D., F.A.S.

PHRENOLOGICAL QUERIES AND ANSWERS.

Continued from Page 75.

ANSWER.

IN theory, it is possible to imagine that the individual, in the direct exercise of the perceptive faculties, should evince as much power as another with the same perceptive power but less in the reflectives. But, as a matter of fact, persons so organised do not exercise that direct scrutiny and observation of external things—form, size, colour, etc.—as to arrive at as correct conception as the one actually more alert in his perpectives and not over-weighted in his reflectives, as in this case. The principle of size is opposed to the idea that he is

at all likely to indulge in the direct exercise of the perceptive faculties. Lord Bacon was a man of large brain, possessing a very high development of the reflective organs, but his judgment was by no means sound where it depended upon his perceiving correctly, collecting correct data from personal observation. It could not be said his perceptives were defective, for the just and proper reason they were not defective ; but his large and powerful reasoning faculties led to their own pre-occupation and natural exercise according to their size, to the exclusion of that direct perception which is referred to in the question.

It is not a fortunate type of brain to have one inch greater in the reflective than in the perceptive, as in this case : it is not favourable to scientific or exact observation. In many instances it must lead to fine-spun theories on insufficient data, and to too much of the metaphysical and transcendental vapourings, veritable “ castles in the air,” which of late have become so fashionable.

It is natural to look in a well-balanced head for a well-balanced judgment. Such a head referred to would not be of a class favourable to sound judgment in the matter of mere observation. It is one more likely to manifest absentmindedness than alertness in the ordinary affairs of life. Nevertheless, such a person might be highly philosophical, an eminent theologian, moralist, bi-metallist, a peace-society man, a sniffer of the east wind of all ologies, an eminent partisan, but not a man to deal practically with things as they are. He again might see, “ in the direct exercise of the perceptive faculties,” as correctly as the other to whom you refer, but he could not think the same, and in practice he would act differently, which would amount to the same thing in the end, *i.e.*, the application of his observation : he would see differently.

When a man is found who has just discovered perpetual motion, and who assures you he is about to complete a machine to demonstrate his discovery, see if you cannot find in his coggly top story the only machine you are ever likely to see. It must be remembered such comparisons between two imaginary heads are not profitable, unless indeed it be to excite the faculties of observation when real cases occur, and to perceive the relative size of organs in the same head. In comparing two heads, there are so many things—other things—to be taken into consideration : quality, health, temperament, youth, age, vitality, activity, excitability—that any judgment predicated on mere size would neither be physiological nor phrenological. To put the whole matter into a nutshell, suppose that “ other things being equal,” and thus comparing

two heads, on safe grounds, I am not disposed to answer your question in the affirmative, as the character of each, based on these measurements, would be totally opposed to their looking at them in a similar manner ; their deductions also would be dissimilar.

7TH QUERY.

How is it that practical phrenologists express themselves so differently in the examination of the same head ?

ANSWER.

Phrenological examinations will vary according to the individual, and the person giving the examination is differently constituted from another phrenologist examining the same head ; and the opinions expressed by each phrenologist will be differently expressed, according to their knowledge of the science, their power of applying it, and ability to express themselves. This is but natural. Phrenologists are not exempted by the science of phrenology, nor by their art of applying it, from the overshadowing law of humanity—viz., difference of organization, brain power, intellectual and moral culture and general capacity. This does not mean that one phrenologist should give a character essentially different from that of another. They must agree on all salient points, although their modes of examination and power of expressing themselves must be somewhat different. If there is an objection in this, the same objection must apply to medicine, law, divinity, or to the physical sciences. If one phrenologist should declare a person had remarkable insight, penetration, force of character, and a well-balanced mind, and another was to declare that the person was a dullard, deficient of insight, lacking penetration, wanting in force of character, a nonentity, either one of them must be lacking not only the qualifications essential to make a good phrenologist, but have a very limp acquaintance with the science of which he professes to be a student. No such difference of opinion would be possible was a scientific knowledge of phrenology the basis of their opinions. Then they would agree, the only difference being in their power to give a just and full meaning to the signs discovered. In my opinion the differences of opinion amongst phrenologists are more apparent than real, arising from their individual application of the science, not from their inability to apply it. One has a lucid manner, another full and verbose, another terse and contracted, and so on ; but all agree on salient points, while their modes of expression vary.

Now that the British Phrenological Association is fully

established, its lecturers, examiners, and teachers will, in all probability, adopt a more uniform method of procedure, which might present some advantages. But no amount of uniformity can obscure individuality, latent tact, or special power. Churches have attempted this and failed ; trade unions have tried it to their disaster ; while it has ever been, and will be, the weak point in communism and all social movements based on an imperfect knowledge of what equality and uniformity truly means. The most perfect unity and harmony, is ever found in variety. This is Nature's law, and must be right. As phrenologists differ in character, ability, and powers of expression, so will their manner and style of discerning character, making deductions therefrom, giving suitable advice, be different.

8TH QUERY.

It appears to me that in examining heads the greatest difficulty is not so much measurements as to ascertain the entire leading or sum of the character, from combining the various faculties. It seems to me a man with large benevolence and equally large acquisitiveness, would not be so generous as one having large benevolence only. Is that so ?

ANSWER.

It is true that men like Eustace or Gosse may give freely and fully, having large sympathies and powerful feelings of reverence, spirituality, and generosity, and comparatively little of what is called acquisitiveness. But, lacking the latter, they would be more benevolent, I deny. They might give more foolishly, freely, and sympathetically, I admit ; thereby gratifying the feeling or impulse of benevolence. Acquisitiveness is as essential to personal generosity as it is to common-sense. It is absolutely requisite to true giving ; it knows the value of getting.

As a student of phrenology, it is requisite that you should understand the location and function of each individual organ so far as these have been discovered. Next view them in combination, and their effect in combination on character. I take this to be your meaning. Elsewhere I have divided the head into three regions, and these regions into subdivisions. Now, if any of these regions predominate, it is an easy matter to estimate its influence on character. It will predominate. Benevolence is a sentiment ; acquisitiveness is less a sentiment than a propensity. When both are large, acquisitiveness will rob benevolence of its softness, not sense. Benevolence will take the crassness and meanness out of the mere desire to acquire, and give at least one useful outlet for

its acquisitions. John Bright was large in benevolence, also large in acquisitiveness. He did not scatter like a prodigal, nor gather like a miser or a fool. The intellectual character, for instance, will be affected as the observing, knowing, or reflective faculties are in the ascendant ; whether the moral region is strong or weak, the social or domestic region less or more powerful. No mere supposing of cases will be helpful ; nothing but practice and experience will do in the consulting-room. It is for this reason, more than any other, a phrenologist should be endowed with special gifts for his calling ; and not the least of these is sagacity, natural intellectual ability, intuition, and keen powers of observation, thoughtfulness, and judgment. Some hints can be obtained from a teacher of experience, and some useful suggestions may be found in most of our text books.

9TH QUERY.

It has been stated that children's heads are larger in the perceptive than in the reflective organs. My observations do not confirm this. If we say the perceptives are the most active, are we right ? Is the apparent deficiency due to the frontal sinus being undeveloped ? Does the foregoing affect the usual measurements ? Is there any special method adopted in the measurement and examination of the heads of children ? Should we give advice in very young children as to the "choice of pursuits ?"

ANSWER.

In the majority of cases the perceptive faculties are larger in children than the reflective. They are always more active than the reflective. Children learn to see and to distinguish one object from another, one person from another, before they can be said to think or reason. Not that they do not think in their little way. Universally you will find that the language of childhood corresponds with the development and activity of the perceptives : "Let me see," "Where is it ?" "Oh, see !" "Come and see," "What's this ?" and "What for ?" are common modes of expression. Some children being more observant and sharper than others, their language, actions and mannerisms will correspond therewith. The absence of the frontal sinus in children certainly does make some slight difference in the formation of the head, and constitutes somewhat to the apparent deficiency spoken of. The absence of the sinus enables us the more accurately to observe the form of the brain. The character of the children will correspond to that form, and the varying shades of that form in the course of brain development and cranial growth.

The perceptive organs are all small, but are kept in constant activity (where there is sight) from the cradle to the grave. They are more fully supplied with nerve cells, nerve fibres, and infinitely smaller arteries, than the larger organs which are brought into play afterwards. These (the perceptive organs) are most active in children, some of whose days are passed in seeing and wanting to see wonder after wonder in this world of wonders to them.

The mental operations of childhood are those of observation—memory of the observed and heard, and comparison of the same ; imitation, or endeavour to reproduce the same ; imagination, or the mental reproduction of what it has seen, heard, or imperfectly realised, etc., variously modified. The mental progress of unfoldment conforms to the phrenological development. It is only in a less degree the child is the man. It observes, reasons, and reflects according to brain capacity, size, or development, brain quality, fineness, density, weight, and activity. The child sees, hears, and thinks. It detects sounds, and distinguishes lights and shadows ; detects familiar objects and expressions at a very early period. Its faculties of observation are engrossed by object lessons in everything by which it is surrounded. It keenly notices, greedily listens, remembers, and repeats. All this world is for it a veritable wonderland—a place of fairies. It dreads the strange, and is drawn by the known and loved ; and all these things primarily excite into activity the perceptive faculties, and in a minor degree the reasoning and imaginative faculties. It wants to see more. Not only is this so, but where children show the least aptitude for noticing, they are drawn out upon all occasions by parents, guardians, and friends. So, with the exception of “alimentiveness” (and the automatic action of certain organs—nerve centres—not adequately known, but localised in the base of the brain), the perceptive organs are the most active in childhood, the first matured in manhood, and almost the first to show decline in old age. Next to the perceptive organs in childhood, “comparison” and “eventuality” are correspondingly active. Higher up “imitation” and “wonder” come into play. Then “ideality” with “comparison”; “imitation” with “comparison.” Below “comparison,” “eventuality” bulges out the forehead, and gives that rotund form to the forehead above the perceptives which gives the impression that the reflectives are relatively larger than the perceptives. It does appear to me that in babyhood and in childhood, eventuality occupies the major portion of the forehead, and that the organs of comparison and causality—especially the latter—do not fully come into play until the forehead rises and expands more fully

in the superior region. The love and trust of childhood are coloured largely by its posterior brain, in which parental love occupies a similar position to that of eventuality in the anterior brain. Childhood reflects, but not in that sense or in any form which shows that the reflectives are larger than the perceptives. You will notice the growth of childhood's powers is something like this. Automatic and instinctive ; "alimentiveness ;" the noticing and detecting familiar sounds ; observing more fully ; attempting to reproduce familiar sounds ; endearments, exhibiting a desire to possess ; memory and "comparison ;" attachment, "comparison" and "imitation," desire for notice and endearment, talent, "causality," and "approbativeness" budding forth—especially the latter—the back head being larger than the front head.

As to measurements, I do not think you will find upon more careful observation anything to alter the proportionate measurements. In some instances you may find eventuality and comparison larger than the perceptives. In such cases, you will find imaginative and inaccurate representations of things observed according as these organs may be influenced.

I apply the same measurements to childhood as I do to the healthy adult, bearing in mind that the texture of the brain in childhood is not so confirmed as in later life ; also what is most likely to be exercised according to the foregoing.

As to advice about "choice of pursuits," it is best to be guided by individual cases. As a rule, advise for physical culture, health, and upbringing till seven ; best of school training and discipline up till 12 or 14 years, with hints as to pursuits ; the educational training to be in the direction of the pursuits, and from 12, or thereabout, on the "choice of pursuits" in a more definite form. As the child is father of the man, some will have a decided predilection for some things, others no special leaning. According to your ability advise and aid the parents to a wise selection.

As an aid in giving advice upon "choice of pursuits," you would do well to know something of the parents' circumstances, means for education and preferment at their disposal ; the nature of local enterprises and opportunities in district for affording employment. You may know what a person can do : by the above aid you may know where he can do it. This has been, in a measure, replied to under the 1st question.

10TH QUERY.

What are the best busts and books for students of phrenology ? What is the best way to get into practice ?

ANSWER.

I have indicated in "Practical Phrenology" the busts and books. For beginners I would recommend Fowler's china bust, "Key" or "Register," and his "Self-instructor," "Works and Lectures," and Story's "Manual of Phrenology." For more advanced pupils, Nicholas Morgan's bust, and the plaster model of the human skull, both recently published by Vago, their respective keys, the foregoing works, and Dr. Donovan's "Handbook of Phrenology," "Combe's Works," and an Art and Science Course in Physiology and Anatomy, reading and study should be accompanied by practice.

For professional examiners, the largest possible acquaintance with the literature of their profession, and "current events," will form a good liberal education, and inspired by an humble devotion to understand and ennable human nature, and attachment to their work, will be certain to provide plenty of opportunities of testing the science in public and private.

SIR J. CRICHTON BROWNE ON "BRAIN-GROWTH."

SIR J. CRICHTON BROWNE, M.D., lectured on Monday evening, February 10th, in the Midland Institute, Birmingham, on "Brain-growth." The lecturer commenced by drawing attention to the gradual growth of the bulk of the brain from infancy to a point of maximum development, which in the case of men is reached, as a rule, between forty and fifty years of age, and in women between thirty and forty, an increase which is in agreement with what we know as to the development of intelligence. From fifty to sixty years of age there was, he said, in both sexes a slight reduction in brain-weight of about half-an-ounce, and from sixty to seventy a further reduction of about an ounce. After seventy the process of disintegration becomes rapid, so that at eighty years the average brain-weight is four ounces less than it was at forty-five ; but among persons of the learned and cultivated classes brains are occasionally found which have not altered by wear and tear, but remain as full and plump and firm as they ever were. This growth from infancy to manhood, the lecturer explained, must not be considered simply as an increase of substance, or uniform expansion ; but it involved the growth of different parts of the brain at different periods, and the development of the folds of the grey matter upon the surface, with the depth and complexity of which the mental power was very intimately associated.

Each brain, too, had its own peculiar growth, as was shown even externally by the varying shape of the head. He pointed to some diagrams of long, broad, and unsymmetrical heads in illustration of this, remarking that the hatter's idea of providing hats to fit everybody within the limit of a dozen sizes was a delusion and a snare.

Having further described the physiology of the brain, he passed on to speak of the conditions favouring brain-growth, or adverse to it. The primary condition of good brain-growth was good bodily growth. They might congratulate themselves that they could not tear up the brain by the roots every now and then to see how it was growing, nor could they watch the formation of its convolutions, and the stratification of the grey substance ; but they could watch the development of the girth of the chest and strength of the limbs ; they could satisfy themselves as to the height, weight, and proportion of the corporeal framework ; and they could encourage or check bodily development, and in so doing they could to some extent encourage or check the development of the brain. It was true that cases could be found of men with a large brain on a small body, or tall men with small heads ; but on examining the facts on a large scale, there was undoubtedly a relation between the size of the brain and that of the body, and, notwithstanding the exceptions, it might be laid down that the height of the race in the scale of civilisation corresponded with its height in the scale of inches.

In Australia the dominant English colonists had an average height of 5ft. 8in., while the servile Chinese coolies had only 5ft. 4in. In Scandinavia, the progressive Swede had an average of 5ft. 7in. while the stationary Laplander had only 5ft. Carrying the comparison further, he invited the attention of his hearers to a table showing the relative average height and average brain-weight of various races. The Scotch stood at the top, with an average height of 5ft. 8 $\frac{3}{4}$ in., and an average brain-weight of 50 oz. Next came the English, with a height of 5ft 7 $\frac{1}{4}$ in., and a brain-weight of 49 oz.; the Germans, height 5ft. 6 $\frac{1}{2}$ in., brain-weight 48.3 oz.; French, 5ft. 6 $\frac{1}{4}$ in., brain-weight 47.9 oz. The Hindoos had an average height of only 5ft. 1 $\frac{3}{4}$ in., and a brain-weight of 45 oz.; the aboriginal Australian 5ft. 0 $\frac{1}{4}$ in., and brain-weight 42.8 oz.; and the Bushman 4ft. 3 $\frac{3}{4}$ in., and brain-weight 38 oz.

The comparison held good not only between races, but between classes of the same race. Men of the professional class in this country at from forty to fifty years of age had an average height of 5ft. 9 $\frac{1}{2}$ in., while men of the labouring class of the same age averaged only 5ft. 7 $\frac{1}{2}$ in. The average brain-

weight of the former was 50 oz., and of the latter 46·6 oz. He ought to say that the average brain-weight in the latter comparison had only been derived from observations in lunatic asylums, and therefore some might consider them not altogether trustworthy. At the same time he had no hesitation in arriving at the conclusion that brain and inches went together, and that if they would promote brain growth they must encourage bodily development. The most important condition of bodily development was good food, and food was therefore the foundation of brain growth. It was significant to observe that while in childhood the brain was going through the most rapid stages of its evolution, the question of food occupied a very large place in a child's thoughts. He wished to insist that as sufficiency of food was a most essential condition of brain growth, so to attempt to stimulate brain growth while food was wanting was to incur most serious risks. It might seem a little late in the day to be enforcing such elementary truth, but that elementary truth was still far from being generally recognized, and was still disregarded on a very large scale. They all recognised that they could get out of the body more energy than was put into it in food, using that term in its widest and most comprehensive sense, but as regarded brain work a large number of persons still seemed to believe that an entirely different dispensation held good, that it lived on airy nothings, and wove a texture of thought out of its own spiritual essence.

Even quite recently in medical works it was taught that the brain and nervous system were the last parts of the economy to suffer from starvation. The lecturer proceeded to argue that the contrary held good, that the brain and nervous system were the first sufferers. The younger the animal the more easily it was starved, and its most actively growing parts were those which were most injuriously affected. It was still unhappily true that there were still tens of thousands of children in this highly-favoured land who had an insufficiency of food. Could a generous and wholesome diet be secured to every English child up to ten or twelve years he was convinced that one-half of the disease, pauperism, and crime with which the country was burdened would disappear in a couple of generations. To educate half-starved children in mental work and compel them to pass examinations was only to intensify the evils of their starvation.

He proceeded to describe the result of an investigation which he made in London in 1884, in which numbers of children who were being drilled in arithmetic, geography, &c., had been sent to school without their breakfast in many

cases, and with insufficient or improper food in others. Beneficial to them no doubt was the shelter, warmth, cleanliness, and good order of the schools, but to force work on their bloodless veins more than compensated in an adverse direction for these advantages. It was not for him to enter into difficult problems of political economy or sociology, but as a physician and a physiologist he declared that food came before education. He approved of judgment by results, but let the results be real. Let the teachers be content to wait and see the sort of men and women they produced, and not judge by figures jotted down by an inspector. The lecturer went on to denounce over-pressure in the schools of the affluent classes, and especially the exaction of home preparation done at a period of the day when the activity of the brain ought to diminish with the approach of the hour of rest. He also enforced the necessity of ample bodily exercise as related to the development of the motor centres of the brain.

PHRENOLOGY VINDICATED.

A REPLY TO DR. WILSON.

MR. JAMES WEBB, the vice-president of the British Phrenological Association, lectured on Tuesday evening, Feb. 11th, at the Lecture Hall, Barclay-road, Leytonstone, on the utility of phrenology. The lecture, over which Mr. A. Forrow presided, was intended as a reply to Dr. Wilson who, it will be remembered, stated publicly some months ago that phrenology was nonsense. There was a crowded attendance, but the lecturer complained of being annoyed by interruptions by a certain section of the audience, who by knocking on the floor with sticks, &c., contrived at first to make things somewhat unpleasant for the lecturer. The chairman, appealed to by Mr. Webb, threatened on one occasion to leave the chair if it were not stopped, which threat had the desired effect. Mr. Webb commenced by explaining that phrenologists knew nothing of "bumps" or "bumpology," these being terms only used by their opponents who were in need of argument and who made up for the need by ridicule. The lecturer went on to explain that he intended by quoting from Dr. Ferrier's works to show the utility of phrenology, and although Dr. Ferrier was an opponent of phrenology, his works formed one of the most convincing proofs of the value of the science. Dr. Gall, who left Vienna about 90 years ago, sooner than give up teaching phrenology, taught that the brain was the

organ of the mind ; that quality, health, and education being equal, size of brain was a measure of its power ; and that particular parts of the brain had separate and special functions. Dr. Ferrier had admitted the first of these propositions ; Dr. Gray, speaking for all physiologists admitted the second, and as to the third the localisation of the faculties had created the greatest opposition but was now being admitted also. In the meantime phrenologists had had to pass through much mud throwing. They had been stigmatised as charlatans, atheists, materialists, fatalists, and many diplomas to public notoriety had been showered upon them *honoris causa*. At the present time "scientific research" was the line of argument—or "bogey"—which was intended to scare them from their belief. Dr. Ferrier said on page 221 of "Functions of the Brain," that "up to a recent date, if we except the cumbrous divisions and fanciful localisation of faculties of the phrenological system, the results of experimental physiology and human pathology had been considered as opposed to the localisation of special functions in regions of the cerebral hemispheres." They would remember the word "fanciful." It was copied by Dr. Wilson from Dr. Ferrier. They would see who were "fanciful," and who were "scientific." No two brains were exactly alike in the size, shape, or convolutions, and each convolution was also further convoluted itself, this interconvolution depending upon the mental capacity of the brain. This doctrine for years taught by phrenologists was now being "discovered" by their opponents. Phrenologists taught that the intellectual faculties were located in the anterior part of the brain. This fact had been accepted by Ferrier. The occipital region of the cerebellum occupied itself with the propensities. The parietal lobe was largely made up of the moral and religious organs, while important premature or selfish propensities lay in the temporal area. The largest organ—the cerebellum—was the organ of sexual love. Dr. Ferrier denied this fact, but he (the lecturer) would, nevertheless, quote from him in support of it. Dr. Ferrier described two animals, contradicting himself, and arguing against doctrines phrenology did not teach. Ferrier imagined that re-production depended on this organ. Nothing of the kind. The organ limited itself to desire—sex affection—so that the only cases he brought against it were not *apropos*. Dr. Elliotson had, in 1841, exhibited in the rooms of the Society of Arts the cerebellum of a gelding which was entirely converted to bone, though the horse had never shown any want of power to regulate his movements, but walked, trotted, and galloped like other horses, without

manifesting any unsteadiness of gait. Dr. Brown had asked, after proving the genuineness of the case, "Can it be denied that this is a case calculated to set aside for ever the notion that the function of the cerebellum consists of the power of regulating and directing the actions of voluntary muscles and of enabling an animal to preserve its equilibrium?" This denial of Dr. Ferrier's "equilibrium" theory was printed before the theory was discovered! The lecturer then passed on to speak of the various organs, and quoted extensively from Ferrier and Combe to show that "modern research" after "much self-denial and painstaking experiments," made discoveries which veteran phrenologists had been teaching in season and out of season for years. How Dr. Gall would rub his eyes, said the lecturer, if he could at the close of the 19th century return to this mundane existence and learn that the discoveries he made in the 18th century—his "fanciful" discoveries—were being served up hot as scientific facts in the place of what Dr. Wilson chose to call "phrenological frauds!" Still they must be glad if after all the truth was making its way under serious difficulties. Proceeding, the lecturer said that phrenology taught that the reasoning and observing faculties were located in the anterior brain, many of them behind the orbital ridge, which fact Dr. Wilson did not believe. He said, "The ridge of the brow instead of representing delicate mental attributes, only formed the outer wall of air cavities which communicated with the nose." He would have been quite as correct had he said the ridge was the protector of delicate blood vessels which communicated with the heart, and, more to the point, had he said they were protectors of the brain inside and the eyeball beneath. This fact as to a communication with the nose was not to the point, and could not affect the question any more than his remark that "a whirlpool of blood" was the phrenological organ of philoprogenitiveness. There were blood vessels even in the bone, but if Dr. Wilson meant his hearers to believe that the cortex of the occipital lobe did not lie where phrenologists placed that organ, he was certainly trying to teach them that which was not true. They had seen that phrenology taught that when any part of the brain had the advantage in size or healthy action, that part held sovereign sway over the other parts. If they were to compare the heads of Dr. Palmer, the Rugeley poisoner, with that of Cardinal Manning, Bishop Selwyn, Thos. Binney, Professor Owen, Michael Angelo, they would see what he meant. Or compare the imbeciles called Aztecs in Barnum's Show, whose heads had a circumference of $15\frac{1}{6}$ and $14\frac{1}{2}$ inches, about seven inches less than the average human crania—he had measured

them himself—with such heads as he had named, and they would have excellent examples.

The lecturer did not finish his discourse, it being intimated to him that the rules of the Guild limited the time for the lecture.

Several heads were afterwards examined by Mr. Webb, and votes of thanks then closed the proceedings.

Hygienic and Home Department.

EFFECT OF TOBACCO ON BOYS.

An experimental observation of thirty-eight boys of all classes of society and of average health, who have been using tobacco for periods ranging from two months to two years, has recently been recorded by Science. Twenty-seven showed injury to the constitution and insufficient growth; thirty-two showed the existence of irregularities in the heart's action, disordered stomach, cough and a craving for alcohol; thirteen had intermittency of the pulse, and one had consumption. After they had abandoned the use of tobacco, within six months' time one-half were free from all their former symptoms, and the remainder had recovered by the end of the year.

GIRLS, LEARN TO BE HOUSEKEEPERS.

BEGIN with your own possessions. Reform your upper bureau drawer; relieve your closet pegs of their accumulations of garments out of use a month or two ago. Institute a clear and careful order in the midst of which you can daily move, and learn to keep it so that it will be a part of your toilet to dress your own room and its arrangements while you dress yourself, leaving the draperies you take off as lightly and artistically hung, or as delicately folded and placed, as the skirts you loop carefully to wear or the ribbon and lace you put with a soft neatness about your throat. Cherish your instincts of taste and fitness in every little thing you have about you. This will not make you "fussy;" it is the other thing that does that—that not knowing, except by fidgety experiment, what is harmony and the intangible grace of relation.

Take upon yourself gradually—for the sake of getting them in hand in like manner, if for no other need—all the cares that belong to your own small territory of home. Have your

little wash-cloths, and your sponges for bits of cleaning ; your furniture brush and your leather-duster, and your light little broom, and your whisk and pan ; your bottle of sweet oil and spirits of turpentine and piece of flannel, to preserve the polish or restore the gloss where dark wood grows dim or gets spotted. Find out, by following your surely-growing strength of thoroughness and niceness, the best and readiest way of keeping all fresh about you. Invent your own processes ; they will come to you. When you have made yourself wholly mistress of what you can learn and do in your own apartment, so that it is easier and more natural for you to do it than to let it alone, then you have learned to keep a whole house, so far as its cleanly ordering is concerned.

Notes and News of the Month.

THE British Phrenological Association, after duly considering the "Fowler Institute Scheme," have decided to keep a separate body, and work on their own lines as heretofore ; therefore the "Fowler Institute" will be worked entirely separate from the British Phrenological Association, as it is an Institute to educate and thoroughly train students in mental science and physical culture. A prospectus appears on the back page of cover.

A NEW edition of "The Face as Indicative of Character" is now going through the press, and will be ready in a few days. Price 2/- in paper covers, 3/- cloth.

MR. A. T. STORY's new novel "The Old Corner Shop : a Manchester story" has just been brought out by the Authors' Co-operative Publishing Company. It may be had through the Publisher of THE PHRENOLOGICAL MAGAZINE, price 1/-.

THE MANIKIN.—A gentleman writes : "The manikin is a marvel. We do our little best to make it known, for why should people be working on and with a body concerning which they know so little, and with which the most sincere mistakes are made in ignorance."

LADIES who are acquainted with the difficulties facing women who have to earn their own living will, it is hoped, forward the efforts of the Misses Hill to open up fresh fields of work by recommending the Woman's Printing Works to their friends. They may be assured that all orders will be carried out with the utmost regard to efficiency and speed, and the extensive plant and premises, to which fresh improvements are being added, afford facilities for every kind of printing. Educated women wishing to article themselves

in any of the departments, are requested to apply to the Woman's Printing Works, 154, Westminster Bridge Road, S.E.

MRS. MARGARET BRIGHT LUCAS.—Our readers all over England will have read with deep regret of the death of this estimable lady (sister of the late Mr. John Bright), who passed away on Tuesday, Feb. 4th. Mrs. Lucas, whose phrenological sketch was in the MAGAZINE for March, 1888, was the Miss Willard of England, as her labours were indefatigable in all moral reforms. She warmly supported the enfranchisement of woman, and was constantly speaking on pulpit platforms in favour of Woman Suffrage and Temperance. She was the beloved President of the British Women's Temperance Association since 1878, which society she was instrumental in founding in 1876. Her home in Bloomsbury was a haven of rest to her fellow sisters from all parts of the world. Few women will be missed more during this coming season, when delegates centre in London from all quarters, than Mrs. Lucas, whose wise counsel and ready sympathy were so universally esteemed.

Book Notices.

The Phrenological Annual and Register for 1890. Edited by James Coates, Ph.D., F.A.S. (London : L. N. Fowler. Price 6d.) It is full of illustrated articles of interest—on Character-Reading, Phrenology, Physiognomy, and Health, by well-known writers of repute:—Nicholas Morgan; Professors Ablett, Stooke, and Severn; Dr. Allinson, L.R.C.P. It also contains Biographical Sketches of L. N. Fowler, President of the British Phrenological Association, London, and others; and a Register of Phrenological Practitioners.

The Christian Age. (J. Lobb and R. A. Bertram, 1, St. Bride Street, Ludgate Circus.) All men have wants, and this ably-conducted paper is well calculated to supply a variety of need in its direction, containing as it does no less than twenty-four pages of most varied matter, including paragraphs of special interest to all, from the oldest to the youngest folk. It is published weekly, the number before us containing an excellent portrait and biography of the late Chief Rabbi Dr. N. M. Adler. Readers interested in Mrs. H. Beecher Stowe's world-famed story of "Uncle Tom's Cabin" may gain much additional information regarding "Uncle Tom's" last illness, death, and burial, by purchasing in the first instance a copy of *The Christian Age*. We commend the paper to the public, and wish it continued success.

Memories of the Months, by Hume Nisbet. With illustrations by the author. (1889. London : Ward and Downey.) Mr. Hume Nisbet wields the pen and the pencil with equal deftness; and in this last of his illustrated volumes he has contrived to treat of a not particularly new subject with a charming and novel freshness. Each month is fitted with a full-page picture, besides flower-pieces and

sketches, showing Nature in some one or other of her various moods, and displaying appreciation for, and careful study of, his subject. Especially pretty are the Tron Church, Glasgow, on the midnight of January the first, the "vessels scudding over choppy seas" in March, and the "waving fields nigh mellow for the scythe and reaping hook." (The author clings to anciently-accepted notions of weather, and discards modern innovations.) To each month also is attached a small appropriate poem, fanciful and quaintly original—appropriate, we repeat, because it is eminently suitable that—to the poet, at any rate—January should suggest reflections philosophic, March should be filled with the new things coming to life, that April should be erotic and damp, July somewhat wild in the blood, September full of a languid mellow satisfaction, December gloomy and sombre-thoughted, and so on. In the last we find two fine stanzas:—

" Into fumes of purple vapour sinks the scarlet eye of day,
Casting out a ghostly lustre over snow-clad branches grey,
Green against that ruddy ray.

* * * * *

" She is of that race of workers sent by time to fill the tomb,
With a space of want and passion, and an after space of gloom,
On an earth but scant of room."

We must take one more stanza (from April), entitled "Inside":—

" I am sitting dreaming, dreaming,
As I watch the falling rain ;
Like a veil it drops, while gleaming
Colours splash against the pane.
I am sitting chained by trouble
Here within this cushioned seat,
With a dead front wall of rubble
And some yards of muddy street,
With a homeless cat, fur-ruffled,
Crouching on the area stair,
Dead to hope like her who shuffled
Past my sight, a moment there."

The book is a good album size, and is a beautiful ornament for a table.

Correspondence.

A PHRENOLOGICAL COLLEGE.

To the Editor of the PHRENOLOGICAL MAGAZINE.

SIR,—The January number of the PHRENOLOGICAL MAGAZINE was one of unusual interest, and must certainly be one of the means most approved for the education of the public in the principles and ethics of phrenology. This leads to a kindred train of thought—*i.e.*, the training or education of professional phrenologists for their career. Hitherto this has largely been a haphazard and fragmentary affair. Many who are now phrenologists owe their special training to "the fortuitous concourse of circumstances" and doubtless natural ability; many others to no ability to speak of, plus gross ignorance and egotistic assertion. Many so-called "certificated pupils" cannot

write a common-sense letter. I have no doubt many phrenologists are very competent teachers, while some who advertise themselves as teachers make phrenology verily stink in the nostrils of intelligent men. I think the time has come when thoughtful phrenologists (anxious for the welfare of our science—its correct exposition and demonstration in the future) should think of some plan more excellent than the desultory and fragmentary teaching of self-appointed teachers, qualified and otherwise. Could not a "Phrenological College," with a staff of teachers—graduates in medicine and arts, and phrenological lecturers—be instituted in London, Glasgow, or elsewhere, where a thorough training in physiology, anatomy, comparative cerebral physiology, anthropology, hygiene and practical phrenology, could be obtained by intending phrenological aspirants? If not, why not? I should be glad to hear the opinions of those most interested.

Yours truly,

Greta Bank, Crosshill, Glasgow,
4th January, 1890.

J. COATES.

Home-tried Recipes.

It is hoped that the following recipes may interest many families who are in daily quest of common-sense, economical, wholesome, and well-tried puddings, pies, and supper dishes, and that they may become substitutes for those most indigestible meat suppers which are so universal.—J. A. F.

PUDDINGS.

Favourite American Biscuit Pudding.—Take a pint of milk, two large lunch biscuits. Roll fine and soak over night in the milk. A lump of butter, half a cup of raisins, half a cup of sugar, one egg, and a pinch of spice. Bake, and serve with *yellow sauce*: made of a lump of butter beaten light, half a cup of sugar, and the beaten yolk of one egg; mix well, and pour on it three-quarters of a cup of boiling water, stir a minute, and add the beaten white of the egg, a spoonful at a time.

Wedding Pudding.—Take two cups of flour, half a cup of sweet milk, half a cup of raisins, a lump of butter size of an egg, quarter of a cup of currants, half a cup of sultanas, half an oz. of citron, spice to taste, quarter of a teaspoonful of carbonate of soda, one egg. Steam two hours.—Sauce for above is made with three-quarters of a cup of sugar, a lump of butter, one egg, beat ten minutes, then add half a cup of boiling water; let it stand over the steam of boiling water five minutes, and add the juice of half a lemon.

The Best of all Puddings.—Take three ounces of the following ingredients: bread crumbs (grated fine), apples chopped, beef suet, currants, raisins, sugar, one and a half ounces of candied peel, two eggs, a tablespoonful of milk, and a quarter of a nutmeg grated. Mix well, and boil three hours in a well-buttered bowl. Take half the recipe for a small family.

Oatmeal Pudding.—Take two teacupfuls of meal and two teaspoonsful of salt, with sufficient water to soak up the meal to the

consistency of cream, after standing twenty minutes, then add half a cupful of sultana raisins, and tie up in a cloth, leaving room for the meal to swell ; put in a steamer or a pot of boiling water for three-quarters of an hour. To be eaten with *dry sauce*, made with two ounces of butter and four ounces of white sugar, well beaten together ; nutmeg on top.

Friday Pudding.—Boil a pint of milk, mix two and a half tablespoonfuls of corn-flour in a little cold milk, stir into the milk, add a beaten egg and a thin slice of butter, and a tablespoonful of sugar ; when thick, turn in a pie-dish and serve hot, with mounds of red currant jelly around the sides.

PIES.

Rhubarb Pie.—Cut up fine some fresh, young rhubarb ; cover with sugar ; make a plain short crust and cover the pie plate. Bake in a moderate oven.

Apple Pie (à l'American).—Peel, core, and slice some nice cooking apples ; line a shallow porcelain pie-dish with paste, half fill with apples, add sugar and flavouring to taste, add more apples and sugar until the plate is full. Cover with paste, and bake in a moderate oven. Rub a little butter over the crust before baking.

ST. VALENTINE'S SUPPER DISH.

Make a stiff custard ; when cold pour it into a glass dish. Beat the whites left from the custard to a stiff froth, with a tablespoonful of sifted sugar. Put half a pint of milk in a porcelain pan, and take a tablespoonful of the froth, and let it simmer on it until it sets. Then take it out with a slice and put in another spoonful, and so on until all the froth is used and piled up on the custard.

JELLY CAKE TRIFLE.

Mix two cups of flour with one of milk, one of sugar, half a cupful of butter, two eggs, one teaspoonful of soda, two of cream of tartar. Bake in thin layers. Spread a layer of jelly, then a layer of custard between. Cut the cake into "fingers," and pour custard over each, after arranging the cake in a glass dish.

LEMON HONEYCOMB.

Sweeten the juice of a lemon to taste, and put it into the dish it is to be served in. Mix the white of an egg well-beaten with the whipped froth of half a pint of cream. As the froth rises put on the lemon juice. Do this the day before it is wanted.

LEMON JELLY.

Soak one ounce of Nelson's gelatine in cold water, dissolve half-a-pound of lump sugar in one gill of milk ; by the time the gelatine is sufficiently softened, have ready the juice of two lemons, in a separate cup, two eggs, well-beaten, in another cup, then pour sufficient boiling water over the gelatine to dissolve it, then add the milk, then the eggs ; keep stirring all the while. Have the mould quite ready, and pour the lemon juice into the other ingredients ; pour quickly into the mould ; do not stir it after the lemon-juice is in, or it will not be clear on the top of the mould-shape.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions :—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs ; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent ; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

“NOVACASTRIAN.”—You have a most decidedly practical available cast of mind, and a body full of energy and force. You are in your element when you are positively engaged in some important business. You never trifle, but are able to sustain yourself in the midst of great difficulty and danger. You would succeed as a builder, as an engineer, as an auctioneer, or a dealer in land or cattle, for you have superior judgment wherever you have experience. You have a good eye for proportions, can weigh and measure by the eye, be a good marksman, and show great presence of mind in times of danger. You are manly, dignified, and mind your own business. You are hard to conquer. You come from a tough, strong, enduring family, and are in your element when you are going through severe trials, provided there is a reward equal to the labour.

JAMES A. B.—Your brain and nervous system predominates. You are somewhat lacking in vital and animal life. You will need to take great care of yourself, for the tendencies are to live too fast in consequence of the brain being so active. You have a fully developed intellect, great curiosity to see, know, and experience for yourself. You have a versatility of talent, and could succeed in some kind of artistic work, or as a writer and reporter. You are liable to overdo, for you have a very restless disposition. You need a companion with a round plump form, rather short neck, and a high degree of the vital and motive temperaments. You must avoid all kinds of extremes in work, exercise, or indulging of the appetites ; specially avoid artificial stimulants and narcotics. You would succeed in some kind of business, but your best gifts are artistic and literary.

E. A. K.—You have too much brain for your body and for your age. You will prematurely develop too much mind. Special care should be taken of your health. You should not be pushed in your studies ; should be encouraged to play and to work, rather than to study. You are prematurely old ; are remarkable for your clearness of mind, quickness of observation, and ability to comprehend even complicated subjects. You have good conversational talent, are quite original, have more than ordinary strength of will and stability of character ; you will probably show a premature tendency to piety, and to a highly moral and religious life. You have the indications of care, prudence, forethought, ambition, sense of character, and independence of mind. You have all the qualifications for scholar-

ship, for talent in music, and for oratory. Should be educated for a profession, only should not be in a great hurry about it.

A. W. C. (Leicester).—You have a favourable balance of brain and body, there appears to be a good degree of harmony of power. You do not often contradict yourself, but are in harmony with yourself. You enjoy yourself physically as well as mentally, but the predominating powers are mental; hence you prefer to study, read, think, and be engaged where mind is required rather than simply to do business. You have a fair proportion of body, so as to indicate health and comparatively long life. Your brain, however, is developed in the superior part more than in the basilar region. You are not wanting in force and energy, but are more characterised for your moral courage, your firmness of purpose, general elevation of mind, and for your distinct intellectual abilities. You are specially inclined to observe, compare, draw inferences, and to see the affinity of things; are very intuitive in your abilities to discern character and motives. You are practical in your judgment, and rather disposed to reduce everything to practice as much as possible. You can keep your own counsel, and are quite self-contained. You are inclined to industry and economy, but some of your higher sources of enjoyment are connected with your spiritual nature; you delight to think on subjects connected with an immaterial world. You have rather strong imagination, considerable versatility of talent, and are naturally refined in your feelings. You have talents as a writer, and should devote yourself more or less to that line of life.

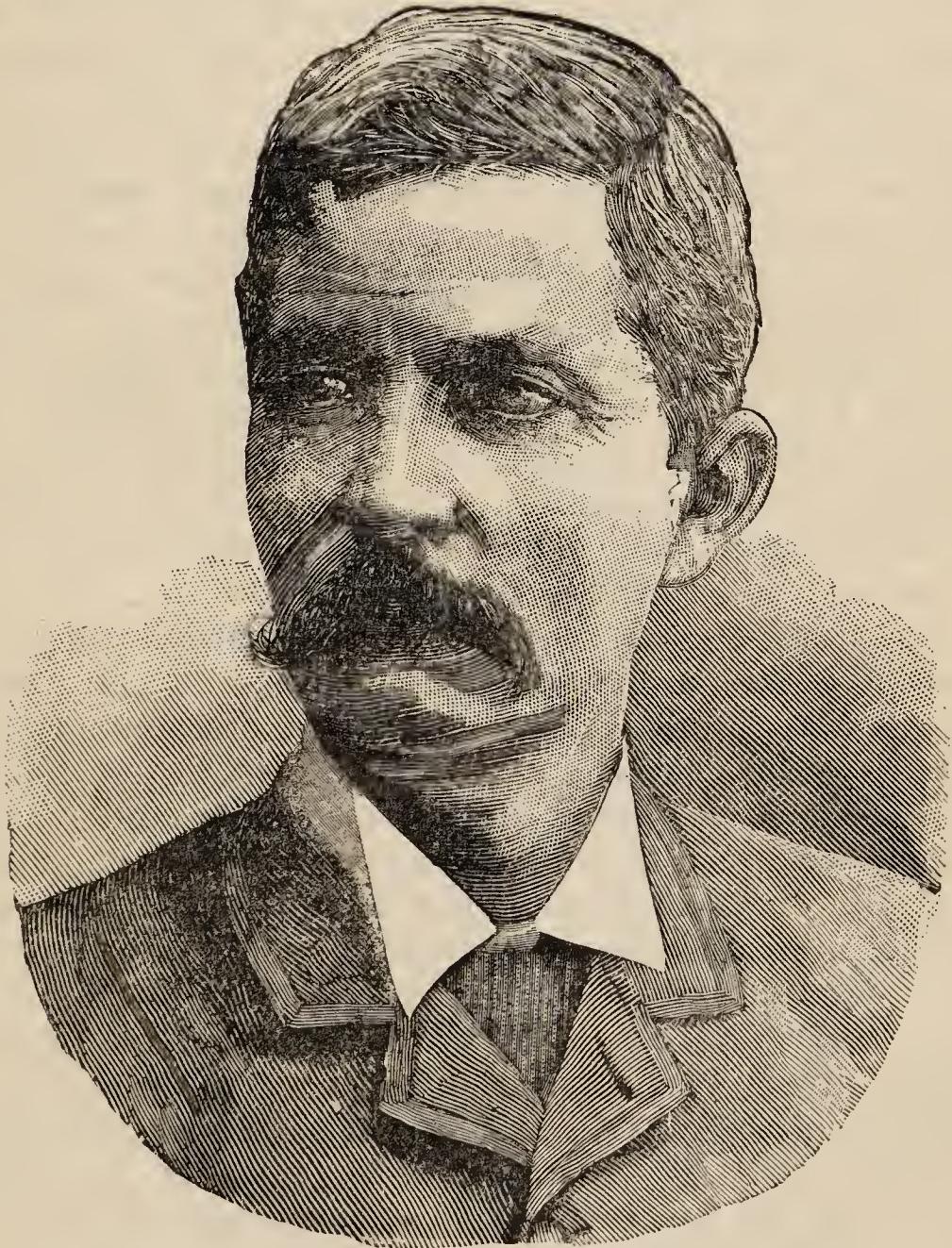
AMERICA.—You have a predominance of the motive-mental temperaments, and have as the result a strong vigorous mind. Your mind is very active, and you will always have something special on your mind that you will make a hobby of. Are liable to be absent-minded, and too far-fetched in your thoughts. You have a great amount of energy to bring to bear on any special subject in which you are interested, and you cannot rest until the object is accomplished. You have great powers of concentration and of mental connectedness. You are demonstrative and anxious for notoriety, but not dignified. You are persevering and patient, but not so positive and quick to decide. You appear to be a man of principle although very peculiar in your views. You mind your own business. You are a great student of nature; would have made a good naturalist. You examine things closely, and are able to acquire a vast amount of information by contact with the external world. Your mind is adapted to the accumulation of facts and statistics, to mathematics and experiments, rather than to the study of theology or mental philosophy. You can judge of the fitness of parts, and the forms and shapes of things with great accuracy. You are not copious in speech or wordy in conversation, yet you may continue in conversation for a long time. You are always in earnest and mean what you say. You have a tenacious hold on life, but not much arterial blood or good digestion. You are intuitive in your judgment and have a penetrating cast of mind.

THE
Phrenological Magazine.

APRIL, 1890.

HENRY M. STANLEY.

THE entire organization of Mr. Stanley is very marked, and the most important indications are presence of



From a photograph taken by Elliott & Fry, Baker-street.

mind, will-power, perseverance, tenacity and stability. He not only has a face which indicates power of self-con-

trol, but his head is very marked in the superior part of it. The leading intellectual organ, as indicated in his photograph, is causality, giving power to plan, think, organize and act with reference to a definite object in view, and the combination of his powers enables him to have the presence of mind to think far ahead with reference to remote results. He is not so mindful of things around him and does not worry himself about present conditions so much as he is anxious about results in the future. He is far-seeing and appears to be able to comprehend the whole from beginning to end. His head is broad ; he is able to keep his own affairs to himself ; he knows how to husband his resources and to make the most of them. He is not prodigal, but can take care of life, health, and property, and manage himself in times of danger and difficulty so as to avoid unpleasant results to a better extent than men commonly can. He is cautious, has a watchful, guarded, and even suspicious state of mind when in unknown places and in complicated conditions ; yet he has as much courage as cautiousness ; hence he is composed in times of the greatest danger. Few individuals are on guard more than he, and few appear to be more careless of surrounding conditions than he. His perceptive intellect is fully represented, but is not the strongest power of his mind. Livingstone was remarkable for his perception and knowledge of details, while Stanley is remarkable for his judgment, and power to plan and devise ways and means. He is decidedly self-contained, original, and acts as the occasion requires him to act. He cannot well be taken by surprise, for he is guarded on all sides. He has a good command of language ; he can talk in a forcible manner, and under favourable circumstances is free and easy in his style ; but usually he is more forcible than copious. He is ingenious and versatile in contrivance, and can do more with a gimlet and pocket-knife than some can with a full chest of tools. His mind is more philosophical than scientific, and he deals more in principles than in facts, and is prepared to give his own opinions of matters and things rather than to simply tell what he has seen. His coronal brain is specially large. He has more than an average amount of character, stamina, and permanency of principle. He is not easily led this way or that by Mr. A. or Miss B., but he acts on his own judgment and carries out his own designs. Whether pious in the professional sense of the term or not, he has moral principle and can regulate his conduct in the midst of very conflicting circumstances and influences. He has strong imagination, can appreciate the beautiful,

mysterious, and spiritual, and feels the full force of influences outside of himself. Hope and conscientiousness appear large, and sustain him in times of danger ; they help to give him presence of mind and to regulate his conduct according to principle. His power of imitation is rather large, enabling him to conform to different circumstances and to feel at home wherever he may happen to be. His discernment of character and motives is good. He is seldom deceived ; if he can see a man he feels he knows all about him. He is charmed with nature and is attracted to nature's music. He is prepared to appreciate everything grand and imposing. His brain is so vigorous that the smaller faculties when brought into action have a powerful influence, and the larger ones in proportion when equally excited. Thus he seldom shows any special defect of the different faculties when called into action.

His photograph indicates first, self-control ; second, power to direct his own energies ; third, capacity to manage in times of complicated difficulties ; fourth, ability to resist foreign influences and temptations ; and fifth, faith and confidence in subjects of a mysterious or unseen nature. Such a character is much affected by circumstances and would be the result to a certain extent of his education and experience, for the life he has lived has necessarily called into action all his powers in a most vigorous manner, and therefore he is more developed, more level-headed, more of an all-round kind of man than the majority of men.

L. N. FOWLER.

GREATNESS AND GOODNESS.—II.

THE qualifications to be good are many—to have good parentage ; to be a child of prayer and promise ; to be fully and well born ; to have a favourably-balanced body ; to have a large moral and social brain ; to have a good digestion ; to have a full, clean skin ; to have favourable surroundings ; to be pleasantly and profitably occupied ; to form no bad habits ; and to begin early to do good. But there are also preparations to be good without which the foregoing have not much value. Forming good resolutions ; educating all the mental and physical powers ; living with high objects in view ; living with reference to the future as well as the present—for others as well as for self ; learning to give as well as receive ; keeping good company ; being on the just and humane side ; making friends instead of enemies—all these things are necessary.

To be good, we must do good, and must abstain from all vice, crime, and morbid actions.

To be great, we have to clear the way, to remove all obstacles, and put forth great effort.

To be good, we must guard ourselves on every side, and avoid all excesses.

To be great, we need to direct all our energies to a single purpose.

To do good, one must be good ; to be good, one must do good ; and for either influences from a higher source than human are necessary. Some kinds of goodness—like genius, poetical effusions, or love emotions—may manifest themselves periodically, spasmodically, or be restrained or encouraged by such seemingly trivial things as climate, weather, the state of the stomach, or the general condition of the body.

Tiberius, the Roman Emperor, a most wicked, cruel, lewd man, when Pontius Pilate wrote to him from Jerusalem describing the life, passion, and crucifixion of Christ, saying that the people worshipped Him as a God, and were more and more enthusiastic in their love to Him, wished the Roman Senate to add the name of Jesus to their list of the gods, but the Senate refused on the ground that a Roman law prevented any additions being made. Tiberius, however, made a statute to the effect that no one who worshipped Jesus should be persecuted or molested on the penalty of death. Yet the same man caused, on an average, ten deaths a day to gratify his selfishness.

Herod Agrippa, grandson of Herod the Great, was one of the most profligate, prodigal, proud, cruel, sportive men that ever lived. He pretended to love the Jews and the Jewish religion, but not the Christians. To please the Jews, he caused James the Greater to be beheaded, and imprisoned Peter with the same intention, who was, however, saved by an angel. For personal enjoyment, Herod caused 400 prisoners to fight until every one was killed. Yet he wrote to Caligula in such a manner as to prevent him from carrying into execution his determination to exterminate the Jews in Judea because they were opposed to his putting his statue as a god into the Temple where the Ark was.

So long as we are good, and in proportion as we are good, are we exerting a good influence. Goodness cannot be hidden. Its power is supreme on earth : it is the salvation of man. What a glorious world this would be if we were all perfect in goodness and love ! Goodness is the greatest power on earth or in heaven. It endures the longest ; it suffers, bears, forgives, labours, longs for and waits more patiently than any other quality of mind. Time, energy, strength and effort are not wasted in trying to be good. Yet there are scores and

hundreds of Mrs. Frys, Miss Nightingales and Sisters of Charity in the field of labour, who are developing their goodness and working out their greatness. There are still samples of such good men as Beringer, Oberlin, Father Matthew, E. T. Pain, Timothy Dwight, President Edwards, Washington, Lincoln, Garibaldi and Savonarola.

The power of example in the matter of goodness is not to be over-estimated. Gerrit Smith once gave 300 dollars to be distributed among poor widows with children in the interior of Virginia. In one town there was a widow who received 50 dollars. The gift stimulated one man to give the land for a house, another to give the timber, and another the glass and nails. The carpenters and masons gratuitously put up a house, which she thus got without drawing on her 50 dollars.

The constant dropping of water will wear away the hardest stone. Constant working one shovelful after another at a ditch in America resulted in the formation of a canal 365 miles long and a railroad 3,000 miles long. A journey continued in the same direction will carry a man around the world.

Men most worthy of praise get it after death rather than while living ; for their works follow them. One reason for this is, that while they are alive their faults are more distinctly seen, while after death their faults are forgotten and their virtues remembered.

Corregio was as poor as poverty could make him. Haydn was always in pecuniary difficulties, and finally cut his throat and blew his brains out. Burns was born in obscurity and lived and died poor. Byron left his country in consequence of debt. Scott worked himself to death to get out of debt. Homer was a beggar. Plautus turned a mill. Terence was a slave. Boethius died in gaol. Paul Borghese had 14 trades; yet starved with them all. Tasso was frequently distressed for the want of a few shillings. Cervantes died of hunger. Camœns, the writer of "The Lusiad," ended his days in an almshouse. Vangelas left his body to the doctors to pay his debts. In England Bacon lived a life of meanness and distress. Sir Walter Raleigh died on the scaffold after many years' imprisonment. Spencer died of want. Milton sold his copyright of *Paradise Lost* for £15 and died in obscurity. Dryden lived in poverty and distress. Otway perished of hunger. Lee died in the streets. Steele was in perpetual warfare with the bailiffs.

It is no special sign of goodness to give money where it is a relief to get rid of it, and where vanity is gratified to give it. Poor people who give but little make greater sacrifices than

rich people whose fortunes depend upon the labours of the poor.

Liberality that is made public where much praise is awarded is too frequently mixed up with selfishness, dishonesty, vanity, and emulation. Christ gave no credit to those who prayed and gave alms to be seen of men. When selfishness stimulates to good deeds there is no merit in the giver although the wants of the needy may be supplied by it. There are some who are good from birth and free from evil propensities. Samuel the prophet was one, Father Oberlin, Joseph, the son of Jacob, and many others. Some profess goodness to gain selfish ends.

An ambitious worldly-minded man wanted to rise in the world, to get rich and become a member of the Government. He became a baker, sold his bread cheaper than other bakers, and got the custom. He then started a brewery, and of course sold his beer where he did his bread, got rich, and became an M.P.

Herod the Great built a city in Galilee and called it Tiberius ; he improved Jerusalem and rebuilt the Temple, not because he cared for the Jews or their religion, but to please Tiberius, the Roman Emperor, his master. Some join the church that they may marry a certain one they love ; others to get on better in business.

To wish to be great does not make us great. To wish to be learned does not make one so. To wish to be an orator does not create a Demosthenes. Whoever becomes truly great has to work for it, to overcome many obstacles, to work long hours and to make many personal sacrifices. Good promises and resolves do not alone make us good ; if so, the world would be full of goodness, for we all promise and resolve more than we fulfil. Good people with good intentions may err in judgment and be led astray ; for goodness is one thing and good judgment is another. Some strive to do good without being good, but soon become weary of it. The best way to do good is to live the life of goodness. Goodness and repentance and reformation are very different conditions of mind. Goodness is the result of repentance and reformation. If a person be full of goodness it will find its way out somehow.

The question, then, may arise in some throbbing heart and swelling soul, How can I be and do good ? A question of the greatest importance. My answer is to begin from this present moment and continue for ever after to be as good and do as much good and as little harm as possible.

L. N. FOWLER.

THE FOWLER INSTITUTE.

THE opening meeting of this Institute was held in Mr. Fowler's New Lecture Room, in the Imperial Buildings, on Wednesday evening, March 12th, with every prospect of success. Mr. Fowler, in his opening remarks, said : The object of this Institute is to understand and disseminate practical phrenology, to teach and explain it so that others can use it to their advantage, to introduce it into schools and to throw out hints that shall be of practical service in society. The time is coming when phrenology will be taught in our schools with other sciences, when medical men will not only believe it (as many do now) but acknowledge publicly their belief, when parents will be guided by the properly qualified phrenologist in selecting a trade or profession for their children, for the head does tell the story with reference to character and capacity. We wish to make phrenology popular, and in proportion as we introduce it properly to let others see what it is, its believers will increase. Phrenology is inviting ; people who read a little about it want to read more. We want it to be popular everywhere ; and in proportion as we make it popular in London this object will be attained, for to convert London to phrenology is to convert the world. The influences of phrenology are healthy ; it makes people feel stronger mentally and physically ; it brings out the resolution and has a sustaining, elevating influence. In establishing this Institute we lay a good foundation for society to work upon ; we wish it to be the means of educating and teaching those who wish to enter the phrenological field. It is painful to see and hear of persons who know scarcely the alphabet of phrenology calling themselves professors and seeking to disseminate phrenology. We wish to do away with this quackery, for it is doing the greatest possible harm to phrenology. I took courage to call this "The Fowler Institute" for I considered I had the facilities to sustain it or at least to start it, and I confidently appeal to all friends of phrenology to help in carrying on this work.

Miss Jessie Allen Fowler then made the following remarks :

1. We want this Institute to be a practical blessing to every one who joins it.
2. We want it to open our eyes to "the greatest thing in the world," which is love to humanity, and love to our Creator.
3. We want all to be able to answer the question asked by Mr. Courtney in *The National Review*, "Is there a science of character ?" by an affirmative.
4. We want to go direct to nature to get the best way of

teaching the development of mind, and of revealing the truths of our own organizations.

5. I want that we should be living proofs that character is not made up of such cast iron material that it cannot improve by study and suitable environments.

6. I want it to teach us to deal gently with the shortcomings of all who are not moulded in the same frame, given the same soil for culture or the same sunlight. As flowers vary that are cultivated under favourable circumstances, so human creatures need the same thought and care bestowed upon them.

7. We therefore want to make this an Institute of mutual improvement. We will endeavour to teach what we know, and members may be able to help us with their observations.

8. The Institute, as you know, proposes to hold classes in phrenology, physiology, and physical culture, and all holding member's tickets will be admitted at half fees. We also open our library and museum (to the former we shall be constantly adding) for the use of all members; further, we give the PHRENOLOGICAL MAGAZINE to our members.

9. We want to arrange convenient evenings when our classes can commence.

10. We want also to arrange evenings for weekly lecturettes, which will be on phrenology and kindred subjects.

Miss Fowler then read the list of lessons, which for the full course will be thirty in number.

Mr. Piercy then made a few remarks about the publishing department of the Institute.

Mr. John Melville, the librarian, then gave some details of this department, remarking: A very great deal might be said to-night. This is a new attempt to promulgate the subject of phrenology. My business to-night is not to dwell on the general organization of the Institute, but to refer as briefly as possible to the library and museum in connection with this Institute. I may say that for a very long time past phrenologists and people interested in phrenology have felt very much the want of a circulating and reference library, from which they could obtain books not always to be had through ordinary channels. The older works are the foundation of phrenological knowledge far more than we generally suppose. Many of us have not had the chance and opportunity of reading from the old works, which contain the most valuable information. Some time ago a number of scientific men and others were trying to set before the world the best hundred books to read: not one mentioned a phrenological work, and not one of the lists sent in as much as referred to the study of man from a phrenological or other standpoint:

this illustrates how neglected the subject of phrenology and mankind has been. We pay more attention to botany, astronomy, geology, and chemistry, than those that deal with this very important subject, the study of human nature. Our intention is to open a library, and Mr. Fowler has decided to divide it into two separate portions,—a circulating and a reference library. The former is at present the larger, and will circulate over London and the country, the only terms other than those laid down being that members making use of it will pay the carriage both ways. The reference library contains a number of valuable books we cannot put into the circulating library. When you see the printed catalogue, which is very shortly to be issued, you will be very pleased with the subject matter contained therein. It will embrace works on phrenology, physiology, anatomy, physiognomy, mesmerism, temperance, physical culture, etc. We shall also keep in the library the weekly and monthly scientific and medical magazines and papers. It is the earnest hope and wish of every one connected with the organization of this Institute that it should not only be a success at the present time, but a growing success, and each must do his or her part to secure this success. We want to see strength and life in our work here and the spirit of enthusiasm over all. I cannot sit down without expressing how thankful we are that Mr. Fowler has lived to start this Institute. We thank him for making this effort to promulgate phrenology and to do more good to man generally.

A few congratulatory remarks were then made by several members, Mr. Coleman, Mr. Baldwin, Mr. Ashley, Mr. Ward, etc., and the meeting terminated.

Wednesday evening has been selected for the weekly lecturette. The monthly Meeting will take place on the second Monday in the month, and that week there will be no lecturette. The spring term of classes commenced on the 21st. All those wishing to join will please make application at once.

MESMERISM : WHAT IT IS AND WHAT WE MAY DO WITH IT.

BY JAMES COATES, PH.D., F.A.S.

MESMERISM is the generic term used to designate certain peculiar mental and nervous conditions in men and women, which have been and can be artificially induced by certain

processes. Anton Mesmer, a physician in Vienna, was the first to induce this peculiar psychic and physiological state in patients who resorted to him. At the period in which he lived, medical men knew much less about the brain structure and nervous system than they do now. The strange effects produced by him have associated similar phenomena with his name; hence the name "mesmerism." Mesmerism has entered upon its scientific age, and whatever accurate observation, patient inquiry, cautious and thoughtful experiment can do to perfect it, will be done.

I believe I know something about this subject. I have studied it for years, and in my time have witnessed and produced many strange things, which have led me to think more reverently of the Infinite and His laws of being, more thoughtfully of man (made a little lower than the angels), whom I find is endowed with wondrous gifts and powers. These qualifications are now and then fitfully seen in coma, trance, sleep-walking, second-sight, natural telepathy, and in those artificially induced states (animal-magnetism, hypnosis or artificial somnambulism) in which we may note mind transference, thought-reading, clairvoyance, psychometry, together with faith-healing, mind cure, and in other peculiar mental phases which have not as yet been sufficiently observed to be correctly classified.

It has been questioned by many able and thoughtful persons (from the days of Van Helmont to Mesmer and up to the present moment) if there is a subtle force or fluid called "Animal Magnetism," which is supposed to be an important agent in these operations or experiments. I think so, and careful and repeated experiments have led me to this conclusion. There is such a force, an influence, an emanation of a psychic or odyllic character, assuredly exercised and directed in these phenomena. This subtle force bears a similar relation to the transmission of thought, as light either to vision, sound waves to hearing, or odorous atoms to olfactory consciousness. We cannot conceive of light, sound, or odour travelling and impinging themselves on the sensuous receptacles of our being without the agency of appropriate media. Neither can we think of health or thought-transference without the means of communication. What we have said about luminiferous ether, sound waves, odoriferous atoms have been admitted in physics.

When we speak of brain waves, the vibrations of which are the media along which the pulsations of soul influences soul or mind (near or apart), we do not assert that this must be the case. We, however, accept such a conception for the more intelligible expression and conveyance of our ideas.

Mind cannot act upon mind directly, but only through appropriate channels or media—these may be physical, mental-physical, or psychological. Thought must be propelled from the greater to the less relatively. Thus the earnest, thoughtful, and positive mind influences, and the passive, sensitive mind is affected by the influence. The first formulates and projects thought, the latter instantly reflects that thought and becomes conscious of it. Thus, when the Prince Imperial died from assegai thrusts in Zululand, his mother, in England, *felt* the intensity of his thoughts at that time, *felt* the savage lance pierce her own side, and knew, or *felt*, at that moment she was left childless. The intense thought of the dying youth penetrated the passive and receptive brain of his mother at the minute and hour of his death although they were miles apart. This is now a historic fact. It serves to illustrate what I wish to convey. Admitting, then, such a medium for the conveyance of thought in ordinary life, as distinguished from mesmeric processes, it is possible to conceive of such a specific force being employed in the latter. Proceeding from the magnet is an imponderable force called magnetism. It is of such a subtle and penetrating character that it can attract, repel, or deflect the needle of a compass through several inches of intervening substance—stone or wood, it matters little. Thus, we say, when a person is attractive he has a magnetic manner, he is a magnetic speaker, or physician. The expressions may be wrong, yet they convey a meaning which other language would fail to do. The magnet has its polarity—its positive and negative poles, its attractive and repellent forces. If we find from experiment that the application of the magnet induces certain temporary physiological changes in the cerebral structure of persons called “sensitives,” and influences, perverts, or deflects the mind, and that this can be proved, or has been proved by investigators of standing, what shall we say? Again, if it should be proved that identical results have been induced by the human hand, directed in like manner by intelligence, shall we not conclude that there must be something analogous in the force emanating from the hand and the magnet which can induce similar phenomena?

Well, this force, this special influence, has been called “Animal Magnetism.” Some writers speak of it as “Organic” and “Human Magnetism.”

Reichenbach, an eminent German *savant*, thought he had detected such an imponderable force, which he termed “odylic,” or “od” force. This force, although it varied in character, proceeded alike from inorganic and organic substances.

Dr. Liebault has recently expressed the opinion, founded on

nearly 25 years of painstaking research, that there is such a special influence exercised by the operator upon the subject or patient, and he terms it "Zoo-Magnetism." More recently, such writers as Mr. Gurney, Mr. Myers, and Professor Barrett, distinguished men of science who have carefully investigated this subject, have shown themselves inclined to accept this view.

In fact, nearly all writers directly or indirectly admit the existence of such a force. I do not say all mesmeric operations are effected by it. We must distinguish between self-induced and otherwise induced conditions, between those in which no influence is transmitted or necessary, and those states in which the transference is a necessity.

Dr. George Wyld, a physician of great repute in these matters, now living in London, says : "I regard mesmerism as the action of mind on mind, as in the 'willing' game ; but is there such a thing as mesmeric aura (animal magnetism) ? Sensitives, *i.e.*, mesmeric subjects, often say that they see lights of various colours emanating from mesmerists, and also that they discriminate their sensations, as imparted by the fingers of the operators, as cold or hot, pleasant or disagreeable, according to the quality of the magnetism of the distinctive operators ; and for myself I have often experienced, when mesmerising, pricking sensations as of something streaming from the tips of my fingers.

"I believe, then, there is a 'mesmeric aura,' but I am still inclined to believe that it is not this aura chiefly which heals diseases ; I rather believe that it is the will, the desire, the sympathy, the love which heals, and that the vibrations, so to speak, of the emotions are conveyed to the sensitives by a magnetic current, this magnetised aura being the product of nutrition, as emanating from the life-blood. Hence the sensation as of blood depletion (great exhaustion experienced by many mesmerists when they effect cures)."

The same learned gentleman, having paid marked attention to all new cases recorded in hospital practice on the Continent, and trumpeted abroad under the newly revived name of Hypnotism, is forced to confess, however varied the phenomena described in distinctive phraseology : "The experienced mesmerist has not added therefore one new fact to his repertory." And with this I cordially agree.

The question remains : Why are some people so pleasant and attractive, or repugnant and repelling at first sight, although they may have been before unknown to us ? Are they surrounded by an aura, an "imponderable" atmosphere in keeping with their true character ? It is quite possible ;

if not, why not ? Animals and plants possess it, why not man ?

Captain Burton, F.R.G.S., in a lecture given by him, said : "Who amongst you cannot quote cases of men being strongly affected by the presence of some animals ? You have all heard of Henry III. and of the Duke of Schomberg, who could not sit in a room where there was a cat. A notable instance of this occurred in my own family—a brave soldier who had fought through many a campaign, yet turned pale and faint in the feline presence. He neither saw, smelt, heard, felt, nor tasted the cat ; the fact of it being there was enough."

General Roberts, one of the bravest of living British generals, has in a marked degree his striking likes and dislikes for individuals and animals, and possesses the same intense dislike—for an uneasiness creeps over him—when a cat is present. He cannot be deceived in the matter. The moment Miss Pussy enters the room, no matter how silently or how slyly, General Frederick Roberts will at once become conscious of her presence.

I may point out, in further contention for this specific force, that some men are much more successful than others in operating, experimenting, and in curing disease. We would naturally think that the most talented and highly educated surgeons and physicians would be the most successful. But that is not so. That mesmeric power is aided by knowledge will not be doubted. But its possession and effective use does not depend upon scholastic or academic training. The most successful operator and healer of modern times was, in my opinion, a sea captain—viz., Captain Hudson, of Swansea. He verily made the lame to walk and the blind to see. Mesmerically speaking, he was an embodiment of magnetic force. Humanly speaking, he was a large-hearted, good-natured, sympathetic man, who was always willing and ready to do all the good he could. There was health in his smile and "healing" in his hands. Poor man, had he been living now he would declare a virtue went out of him in every instance where a great cure was performed.

Joseph Ashman, "Psychopathic Healer,"—to whom, in *Mystic London*, the Rev. Maurice Davis, D.D., so graphically refers, possessed great healing powers. His cures were as remarkable as his culture was defective. He was a veritable well of sympathy, and took a positive delight in curing disease. Such a man could not live long in the intense and enthusiastic exercise of his powers. I knew him. I have always noted that physicians and ministers, and others of his temperament, possess somewhat similar healing powers.

While admitting this magnetism or aura is the vehicle of the will and purpose of the positive operator on the one hand and the negative subject on the other, it must be remembered there are other factors—superior health, will-power, force of character, natural intelligence, etc., on the part of the operator—certain conditions of sensitiveness, natural or artificial receptivity, faith, and possibly inferiority on the part of the subject—secondary conditions by no means to be overlooked or despised. The would-be operator having convinced himself of the reality of this odylic or mesmeric aura and its possible direction by the will, and also that both it and the will can be developed by exercise, he should proceed to the task of self-culture in these particulars. In doing so he will contribute to his own well-being in more senses than one, and will start upon his investigations at the right end—the beginning itself.

Mesmerism is a dangerous force to work with, especially where experiments have been entered upon in a thoughtless spirit of inquisitiveness. Both operators and subjects, have been seriously deteriorated in manhood and in soul, and evils have been wrought out of which sad life-stories could be written stranger than fiction.

Let the experimenter proceed with all due caution, animated by high principles, pure and honest motives, full of sympathy and anxiety to alleviate suffering and cure disease as the one something worthy of attempt; and secondly, as an aid to investigate mind, and thus find in mesmeric conditions the key to Psyche, or the gateway to the soul and things spiritual.

In conclusion, let none proceed to investigate the subject unless they can give time, patience, and thoughtfulness to the research, and possess above all a thorough or conscious control over their own passions, tempers, and impulses. For why should they who have no mastery over themselves—this is a serious matter—undertake to impress their influence and direct others?

MIND—ITS DEVELOPMENT.

PROFESSOR JEVONS in his work on the "Principles of Science," says, "If men do not act as if they were not merely the brief products of a casual conjunction of atoms, but the instruments of a far-reaching purpose, are we to read all other phenomena and pass over this? Certainly not."

By an investigation of the instincts of the ant and beaver, we discover that they are ever led by an inscrutable agency to work toward a distinct purpose ; and, therefore, we, faithful to our scientific method, should consider and analyse those impulses of the human mind by which man is led to work for the divine in life. The capacity possessed with its past discoveries and present advance, proclaim that not only has light dawned and hope come, but that its very energy throbs already with expectation of far greater results.

We fully echo the sentiments of Dr. Wendell Holmes :

“ Let in the light ! From every age
Some gleams of garnered wisdom pour ;
And fix'd on thought's electric page,
Wait, all its radiance to restore.

“ Let in the light ! These window'd walls
Shall brook no shadowing colonnades ;
But day shall flood the silent halls,
Till, o'er the hills the daylight fades.”

Ever since the great and powerful trio—brain, nerve and mind—has existed, the one has been dependent on the other for manifestation. In the past, however, our acquaintance with their operation has been hindered by a prejudicial or stereotyped process of thought. We rejoice that to-day many of these shackles have been thrown off, and enquiry is now conducted under a different *régime* and with freer conditions.

Professor Ribot, in “Diseases of Memory,” has the following pregnant sentences : “ Every recollection has its seat in a definite and determined portion of the brain. Each hemisphere is made up of a certain number of totally different organs, each having its own special function, whilst remaining in the most intimate relation to its fellows.”

With such a view of this most interesting subject, it must certainly rank high in the world of effort whenever, or by whom, the thoughts are turned inwardly on self ; and the endeavour made to become acquainted with the powers, efforts, and influences of the mind ; more especially by reason of the wondrous effect produced upon these unseen yet mighty forces, naturally roaming, but which it is possible to guide and concentrate.

Advance in a study of this character must of necessity be comparatively slow. But what of that ? Science is full of eyes—observing, analysing, registering. There are some few even now who would have us shut our eyes to observed facts, because of their crossing the path of some previous theory. How unscientific ! Science must ever advance ; it cannot

stand still and be content. Bodily sensations give rise to perceptions of objective phenomena, and these sense-perceptions are the starting points of all science.

In one of Professor Huxley's writings is found the following : " We arrive at the result (remarkable as it is) that the brain is the seat of all sensation and mental action, the primary cause of all muscular contraction, &c., there being hardly any physiologist of repute but accepts this view." What have we then ? Why, on the one hand, mental science—or phrenology—as an indicator and controller ; and, on the other, the centres of ideation and their magnetic influences by Professor Ferrier.

No distinction marked that seaside pebble you picked up on the beach ; its exterior was not interesting, nor its marking attractive ; yet when the lapidary had sawn it asunder, and the interior was exposed to view—lo ! what a revelation of beauty and interest. Then its native worth was revealed, and its individuality, so to speak, became apparent. Just so in relation to man. To all appearance, many of our youths and maidens are dull, possessing few mental attractions as to talent or influence ; but let phrenology reveal their capacity, whilst patience and culture are afforded ; " latent value" will be discovered, and the possibility exists that in the future the world will be startled by advantage derived from such unexpected quarters. Instance Dr. Adam Clarke, the great commentator ; and Samuel Drew, M.A., one of the keenest metaphysicians England ever knew.

Nor must we forget the individuality of brain, which observation has revealed—the very tone of mind corresponding with each distinct development. One man is (as to talent and tastes), broad, large, brilliant, refined ; another, narrow, contracted, dull and coarse.

The question here presents itself—Is it possible for any mind to undergo changes in its tone and quality ? We reply in the affirmative, provided the brain has not become disordered or diseased, and its powers thereby enfeebled. Does not the body constantly throw off useless particles, and take on new matter, still retaining the same general identity ? In similar method the mind may be passing through a transition state, growing stronger in idea and freer in action ; yet such transition may not evidence itself till some one day friends and neighbours are surprised by an action, or awakened by a speech or writing declaring the advancement, to their delight and satisfaction. Each acquisition becomes an impulse to something beyond : intellect, affection, and moral energy, prompting to further enlargement and expansion.

Rely on it, that, in proportion as a man possesses knowledge, and uses it to the best advantage, will he become great, powerful, and influential among his fellows.

An illustration of power unseen, and undiscovered, is found in photography : the sensitive plate is placed in position, the lens uncapped, and the flash of light produces an image—perfect, but as yet unseen. Now a developing solution is poured on it ; at first a blurred and indistinct impression is perceptible ; but one after another the details come out, and at last you have a perfect likeness.

So talent may be possessed, yet undiscovered. How great a boon does phrenology become at this juncture ! for it can and does reveal its presence, whilst the subsequent education and training corroborates. Not all at once, however, will the extent of capacity declare itself, but by degrees, until in course of time you look on one reaping individually great profit, friends and admirers congratulating on the influence and position gained.

The education of to-day here calls for notice. It is admitted that wisdom is above price, and knowledge better than riches. Yet how frequently is the one confounded with the other, though differing greatly. One of our poets has, I think most clearly set this difference forth in the following lines :—

“ Knowledge and Wisdom, far from being one,
Have oft-times no connection : Knowledge dwells
In heads replete with thoughts of other men ;
Wisdom, in minds attentive to their own.

Knowledge ! a rude, unprofitable mass,
The mere materials with which Wisdom builds ;
Till smoothed, and squared, and fitted to its place,
Does but encumber whom it seems to enrich.

Knowledge is proud, that he has learned so much :
Wisdom is humble, that he knows no more.”

We argue that were scholastic institutions conducted on scientific principles, great advantage would accrue to the scholar, whilst the tutors would less frequently have to grieve over dull, refractory pupils, from the readiness of acceptance and the interest excited by the study. Years are frequently wasted because a certain curriculum is imperative, whether or not the capacity lies in that direction. Hundreds of boys and girls are to be found poring over studies they cannot comprehend, and which, instead of exciting interest, engender disgust. We speak advisedly when we say, that were the bent of each youthful mind known to both parent and teacher, the mental power, courage, and determination gathered by the interest felt in them (that is, the studies), the foundation of a

noble, intelligent, and useful manhood and womanhood would be laid, at once tender and admired; the ruggedness of nature would be lost in susceptibilities to highest impulse and noblest achievement.

Sir John Lubbock is with me on this point, for he says:—“The education should embrace those subjects which the intended occupation or profession call for. In our day, there is scope for every kind of brain, from the lowest to the highest. Therefore men should make the best use of the powers possessed.”

In nature, where the untrained eye discovers nothing but dirt and mire, science reveals exquisite possibilities. Separate the clay, and it becomes fit for the finest porcelain; if still further purified, you have a sapphire. In like manner, if soot from your chimney be properly treated, it will give you a diamond. Science in every way is useful, for it raises and strengthens the individual and national character.

The present age requires that each life shall show something attempted, something done. The agriculturist wisely considers the soil, knowing it will be barren or fruitful, according to the cultivation. All soils are not alike: each requires a certain method of culture because of its variation from the general. In like manner the cultivators of the mind have to learn that a stereotyped method will not yield a rich harvest of either advancement or satisfaction. The brain in its types of character must be considered, that the tuition may be productive of good results. Variety must always be evident, both in the purpose and character of the work.

In such an enterprise, method, earnestness, and patience are called for; then, before determined effort, the greatest difficulties will vanish, whether they be tutorial, national, or individual.

The tourist, intent on reaching the summit of yon mountain, sees difficulty and even danger in the attempt, yet commences the journey. After awhile, when the top is reached, his patience, courage, and effort are rewarded by the wealth of prospect stretching at his feet, being more than repaid by the satisfaction and experience gained.

It is thus with education and culture. There must be definite aim and object. By and bye the patience shall be rewarded, when the goal is reached.

Nor must it be forgotten that man's physical actions are determined not only by inherited and acquired tendencies, but also by ideas: they also govern, for as a man thinks, so he acts. No laws of teaching or institutions can be permanent unless founded on a true knowledge of mankind; hence,

Gore says, "Mental science should be the basis of all philosophy."

What would be thought of a gardener who, seeing a sapling bending beneath its own weight, neglected to prop it till it should be strong enough to support itself? What then will future generations think of parents and guardians who neglect any means by which the knowledge of any weakness may be gained, or the development of capacity be directed, that life-long advantage may be the result? I contend the occasion is imperative and the duty clear.

In the past, discipline of the mind in training has not been sufficiently recognised: a discipline that shall bring out the faculties of each boy and girl to their fullest extent in the different channels, scholastic, professional, technical, or commercial life of the student.

True excellence is always the result of self-denying effort and earnest toil. That statue, the perfection of which you admire, suggesting activity or repose, daring or courage, defeat or triumph, is the product of thought and labour from the day the slab of marble first lay untouched in the studio of the artist, till it stood out the likeness of an individual or the declaration of a success—labour both of brain and hand.

Native talent may be declared in a shepherd lad, as well as in a prince; the difference existing in position, opportunity, and surroundings. Give the former the opportunities and advantages of the latter, and in many cases the outcome would be truly astonishing.

An objector may now remark, What a hazardous course, to lift such an one out of his position and place him in the midst of influences totally different from any he has ever known! May I ask a moment's reflection? Is not peril the element in which true power is developed? Let the youth of any calibre be kept from society, from every tempest, and all storm, and his upgrowth will be that of a perpetual infant.

The true nurses of intellectual power and vigour, in my estimation, are freedom and contact. Instil true principles in the youthful mind, and you need not fear either his safety or his success.

It is admitted on all hands that the age calls for interest and action on the part of each and every citizen. If so, then it behoves them to be abreast of any important subject that shall present itself either for discussion or acceptance, whether of individual or national character, that weight may be given to argument, force to thought, and judgment to decision.

By what means shall the seeming incongruities and hindrances to national progress and influence be removed?

I reply, By a wise education of the people, so that ignorance shall be looked upon with disgust, and wisdom be considered fortune ; then universal charity shall be enthroned, and commercial enterprise be without selfishness.

Under such conditions, parental love will become more deep and tender, and filial affection more devoted and in volume. The right use of our highest endowments will be found the greatest safeguard against the influence of lowest idea.

True, unknown quicksands and rocks unregistered may exist, but what of that ? who would on this account stay research or discourage enquiry ? Never forget that each sure conclusion becomes a stepping-stone to higher altitude and far-reaching purpose. We need not fear the issue, whether it be ours to journey through desert wilds or cultivated landscapes : an influence shall be exerted by us that shall gladden the anxious and stimulate the faltering. Bright flashes of genius, and the clear radiance of accumulating wisdom, giving unity, richness, and variety to the “ canvas of life.”

We revere the memory of our “ sires : ” as far as they knew they acted with the best intent in the education of their families ; but we live in clearer light, and wider range of opportunity and exercise. Let us, therefore, prize the great privileges enjoyed by us through their efforts, and ever strive to be worthy representatives of such an earnest, devoted, and patriotic parentage.

We have entered their labours, we have built on the stones they laid,
We are warmed by the fires they kindled, redeemed by the price they paid ;
For as the day has broken, the light has travelled wide,
But for aye be it remembered --the men of the morning tide.
Let their grand example rouse us to be worthy the name of men,
To work for the *ages* coming, and *now* to think of *then*.

RICHARDS GRAY, PH.D. F.S.Sc. (Lond.).

CAN THERE BE A SCIENCE OF CHARACTER ?

MR. W. L. COURTNEY, M.A., has written an essay on the above question in the *National Review* of March, in which he argues that a science of character, if not impossible, is only possible in “ a rather vague fashion,” and that all attempts to found such a science have hitherto failed. Lastly, he furnishes a theory of his own, the result of his reasoning and imagination.

“ Character,” Mr. Courtney says, “ means personality, and personality may be felt but cannot be explained.” This is

the answer given by a metaphysician of the 19th century to the question : What is character ?

Human character, in my opinion, is the result of the combination of a number of elementary dispositions, which exert a certain force on man and are different in proportion in each individual, which vary according to certain laws and within certain limits, and may be transmitted from parent to child. The strength and arrangement of the impulses differ in every man ; but if we look at history, we shall find that the same impulses guided men a thousand years ago which guide them to-day ; and if we look at nations, we find that the majority is guided by a number of common impulses which, together, form the national character. By studying heredity, by observing the successive development of mind in infants, the perversion of character in the criminal and insane, by studying the facts of history, and last but not least, by studying the differences in the manifestation of character in our friends, we shall collect the material for a science of character.

Mr. Courtney, however, thinks differently. *Experientia non docet* Mr. Courtney. "According to common views," he says, "knowledge of character is a special sense, independent of concrete experiences, yet the novelist and dramatist are frequently bidden to study, as though an increased experience would render their character-drawing stronger and truer."

The explanation of La Bruyère's "Characters," of the ancient doctrine of temperaments, and the distinguishing characteristics of man and woman, is not original ; it is only "with great hesitation" that the author ventured to propound a few propositions, and he only did so "because they, or something like them, have been put forward by great authorities." I may, therefore, pass to his criticism of "the most serious attempt to make a science of character" as furnished by phrenology.

Mr. Courtney considers phrenology an exploded doctrine, (1) because, according to his view, the brain acts as a whole and does not possess a plurality of functions ; (2) because "science by no means supports the particular localisations of organs, for which the phrenologist contends" ; and (3) because the skull does not correspond in its configuration with the brain which it encloses.

The first statement shows entire ignorance of the results of experiments made on the brain of animals during the last twenty years by such independent investigators as Hitzig, Fritsch, Munk, Luciani, Tamburini, Ferrier, etc. Not one physiologist could be found to-day who would support Flourens' assertion, that "the cerebral lobes can lose either from the front, the back,

the top, or from the sides in substance without losing their functions ; one part can supply another ; intelligence can subsist or be lost by each of them." This statement was refuted in 1861, when Broca confirmed Gall's localisation of speech in the lower frontal convolution. From that time it became evident that the phrenological principle "that the brain has a plurality of functions" is correct, and all the experiments since made on the brain-cortex only had the result of confirming the phrenological observations. (See : *Journal of the Anthropological Institute*, August, 1889 ; and Reports of the British Association Meeting, at Newcastle, September, 1889.)

No doubt, scientific men of to-day are much more accurate than the phrenologists ever were, but, considering the state of knowledge concerning the relations between brain and mind at the beginning of this century, Benedict and Comte are justified in ranking the founder of phrenology with Galileo. What the latter has done for our conception of the universe, the former has done for mental science.

Our opponents can never conceive the vastness of the phrenological doctrine, and, indeed, many of our supporters rest satisfied with a knowledge of the nomenclature of the various organs. But let me take only one single faculty,—say language, which was the first of Gall's discoveries—and look at its nature and history.

Until Gall located speech in the lower frontal convolution, it was regarded as something placed ready-made in man by nature. Yet he was unable to convince his generation, and his work was continued by Bouilland, who added to the pathological evidence, and he again was followed by the brothers Dax. Universal recognition was, however, only granted when Broca, in 1861, referred the speech centre to the lower left frontal convolution, near the island of Reil. It is now established that speech may be lost almost independently of all other disturbances. It is thus shown that one element of the faculty of communicating our thoughts is dependent on a definite area. The other two elements are still under observation. Each of these factors—(1) gesture, (2) speech, and (3) writing—may be lost separately. Pathology has taught us also to distinguish between (1) the memory of words and (2) the articulation of speech—as in the two diseases, amnesia and aphasia ; and she has further shown that of the two factors in the faculty of writing—(1) pictorial representation by means of drawing, and (2) the putting down of arbitrary symbols expressing abstract ideas—the loss of the latter is much more difficult to be repaired. Not only does

physical science teach us that speech is an independent faculty, but it teaches us also that speech is built up from different elements. The sounds we hear and the signs we read we try to retain as a means of intelligence. We have, therefore, the complicated sensations of sound and sight, which remain in our brain as forms of memory. These forms of memory may incite the articulate movements of the tongue ; but in order to form ideas other elements of sensation must enter into combination. Some people have their ideas deficient, some the centres for the movements of articulation, and others the centre for the memory of words. Thus it happens that in some people the thoughts arise quicker than they can express them, and in others there is a stream of words expressing but one idea. Of gestures, as a means of communicating our thoughts, I need hardly speak here, for not only have phrenologists pointed out their great significance, but independent scientists—foremost, Darwin ; next, Mantegazza, Gratiolet, Duchenne, and Piderit—have made numerous observations, and put them on a scientific basis.

Mr. Courtney makes much of the supposed error of Gall, *i.e.*, the localisation of the sexual instinct in the cerebellum ; but the founder of phrenology supported his theory with a vast collection of pathological evidence, and even Ferrier acknowledges that “satyriasis or nymphomania are to be observed in connection with disease of the middle lobe of the cerebellum.”

I now come to the third statement that “the skull does not correspond with the brain.” No doubt there are eminences, depressions and cavities in the cranium, which have no counterpart in the brain, but they only show that allowance must be made, and that we can only estimate, and not be mathematically precise, as to the size and configuration of the brain. So much every anatomist and craniologist grants us ; and the fact that, for instance, Professor Flower, the Director of the Natural History Museum, can recognise particular skulls, when presented to him, as belonging to certain nations ; the fact that he can distinguish male and female skulls ; the fact that “Criminal Anthropologists” recognise the criminal by the peculiarities of his cranium : is a proof that the construction of the skull is remarkably proportionate to the whole anthropological organization in brutes and in man ; and that there are certain fixed and uniform laws in regard to the development of both brain and skull, whatever those may say who try to run down either craniology or phrenology.

Phrenology has been—in my opinion “unfortunately”—popularised so much, that Smith, Brown, or Robinson, think themselves qualified to express an opinion on it. Besides, the

doctrine has not had a learned advocate like Combe since 1858 ; and men have been, therefore, free to fling any adjectives they liked against it without having to fear of being contradicted. This feeling of safety has assumed such dimensions that, to-day, men who have never looked at any of the works of the three great phrenologists, criticise the system as if they knew all about it, and expect one to be grateful to them if they have taken the trouble to look at a bust in an optician's shop.

Now, to Mr. Courtney's own theory of character, as indicated by a division of temperaments which have no existence in reality. He distinguishes three classes : the energetic, the emotional, and the intellectual types of temperaments.

In the first class he unconsciously becomes phrenological when he says : "As a rule, it may be observed that energetic people have a considerable breadth of head and brain. I must agree with him there." But I should be very sorry if his conclusion were correct that "such energetic temperaments make admirable assistant masters in a school, but not good head-masters."

What Mr. Courtney discovered in his "study" or "library" as the "energetic" temperament is that which is well known to phrenologists as the "muscular" or "motive" temperament, so called because the bones and muscles predominate in this type over the vital organs and the brain and nervous system. The mental characteristics are force of character, industry, and executive ability ; but men of this temperament are not, as Mr. Courtney says, the assistants, they are the leaders in active life.

The second type in Mr. Courtney's classification is the "emotional" temperament. "We know that emotional characters are much given to tears," says our author. This sounds as if he intended to divide human beings into those who fight, those who cry, and those who think. I should have thought, too, that the energetic temperament depended on the development of bones and muscles in man, and that the intellectual temperament depended on the development and quality of the nervous system. According to Mr. Courtney, however, the first depends largely on the quality of the nervous matter in the brain ; the second (emotional), depends on certain functions of the body ; on what the third (intellectual) depends, he does not state.

What Mr. Courtney assumes to be the emotional is in reality the "vital" temperament, so called because it depends on the nutritive system, *i.e.*, the organs of digestion, circulation, and respiration. Such people are fond of good

living; they enjoy a great deal; they are social, and often emotional.

To Mr. Courtney's third class belongs the intellectual temperament. He is not able to give us any characteristics of this temperament, but it is clear to him, that three great powers or faculties belong to it: retentiveness, discrimination and reproduction. Mr. Courtney not only treats memory as if there were no varieties of it, but he says, that "we remember what we are fond of, whether it be art, poetry, or philosophy, just as we remember what we hate, such as a distasteful odour or a wicked face." Has our author never met with people who are very fond of music but do not remember a tune; and have there not been a number of authors who could not remember a line of what they had written? If Mr. Courtney is right in his statement that "just as the retentive power is the gift especially of what we call talent, so the reproductive power is the gift especially of genius," and that "if we wish to distinguish the two, genius and talent, this affords an easy test," then the majority of our learned and literary men are geniuses. But the crowning sentence is Mr. Courtney's last: "There is no outer life, no life of purely external characteristics, belonging to the man of intellectual temperament, for he, above all, leads the life of the Spirit." Anyone who has ever been to a dinner given by some members of the Royal Society, or Royal Academy, can give testimony to the contrary. Luckily, our great men do not lead the lives of the Spirit, but enjoy the pleasures of their earthly existence as much as, if not more than, any other human being.

What Mr. Courtney thought of, in all probability, is, what is commonly called the "nervous" or "mental" temperament, on account of the predominance of the brain and nerves over the nutritive system and the bony and muscular frame. Its characteristics are great sensibility and mental power.

But, after all, a classification of temperaments does not supply a science of character, for temperament modifies but does not form the human character. So far, the phrenologists have made the most serious and also the most successful attempt to found a science of character; besides them, the three most distinguished philosophers of Great Britain and France, *i.e.*, Professor Bain, Herbert Spencer, and Auguste Comte, have done much towards an analysis of the human dispositions, and they too have been not only thoroughly acquainted with but supporters of phrenology, especially Comte, who founded one of the greatest philosophical systems on Gall's doctrine.

THE BRITISH PHRENOLOGICAL ASSOCIATION.

THE members of the British Phrenological Association held their ordinary monthly meeting in the Board Room of the Memorial Hall, on Tuesday evening, March the 4th. Notwithstanding this was also the annual meeting, only about thirty members attended. The business of the evening chiefly consisted of reading the Hon. Secretary's Report of the past year, and electing new officers for the ensuing year. The President, L. N. Fowler, Esq., on taking the chair, called upon the Secretary to read the report of the last meeting, after which the Hon. Secretary (Mr. A. T. Story) read his Report of the past year, which was as follows:—

REPORT 1889-90.

In presenting their Report for the past year, the Council would remark that since the last Annual Meeting of the British Phrenological Association unusual activity has been manifest in the phrenological world. Not for a long time has there been so much general interest taken in the subject of phrenology. It almost looks as though we were at the beginning of a new awakening in respect to the science we are associated together to promulgate.

As regards the Association itself, the past year has been what may be called a transition period. We appear to have grown out of our infantile condition, and to feel the necessity of assuming one more becoming the age of maturity. In other words, the Association seems to think that it has reached man's estate, and that it is time its house should be enlarged to accommodate its growing life. Let us hope that the manhood we are now assuming may be a long and vigorous one. It will certainly bring with it larger and more onerous duties ; and if we are to fill them aright we must show ourselves strong, worthy, and unanimous in our determination to work with a single eye to the spread of phrenology, sinking in that resolve every other interest and consideration.

During the year we have held more than the usual number of meetings, but this has been occasioned chiefly by the need that has been felt for wider organisation and a more militant attitude. The necessity for a room of our own in which we could hold our meetings became so urgent, that it seemed as though nothing could be done until we had secured one. This matter was discussed at many meetings of the Council and of a committee formed for that purpose. A great deal of trouble too was taken to find a convenient place, but without result—without result, that is, until Mr. Fowler came to

our aid. To his enterprise we owe it that we are now enabled to say that the Association has a place which it can call a home in the Imperial Building. Mr. Fowler has enlarged his premises for the purposes of his Institute, and at an annual outlay of £25 we are enabled to enjoy the use of a room for our general and Council meetings with seating space for 70 persons. This arrangement was finally made at a meeting of the Council held on Saturday last. We hope that the Association will soon be so large as to require accommodation for a much larger number ; but with an increase of membership we shall have proportionately larger funds, and so be better able to house ourselves according to our means. Meanwhile we must be content to take things as they are and to work on in hope of grander things in the future.

In one respect we may be justly satisfied : we have made a distinct advance within the year, and have not been merely marking time.

In regard to membership there has been a steady advance during the year. We now number 110 members. Two or three have fallen away from us during the year ; but I do not think we are weakened by this withdrawal ; on the contrary we are probably strengthened. Two of them left us because we could not see our way to give them certificates *honoris causa*. Both of them were unknown to fame, and both shockingly ungrammatical. Personally I should not have minded that if they had been otherwise instructed ; but everything showed that they were lamentably ignorant—and not the least so in regard to phrenology.

We have given five certificates during the year, four of them being *honoris causa*. One of these was granted to Mr. Nicholas Morgan, the veteran phrenologist, and another was granted, or is to be granted to-night, to Mr. Richards Gray, Ph.D., F.S.Sc., (London) of Folkestone, a gentleman in every way deserving of the honour we have bestowed upon him.

Amongst those who have been added to our ranks during the year we number two Australians. It is not unlikely moreover that we may have a Tasmanian society affiliate with us before long. All along the line the friends of phrenology are rallying round us. Two of our latest adhesions are Mr. and Miss Odell, who have made themselves thoroughly well known in and about London, as well as in some parts of the provinces, as able exponents of phrenology. We hope to have their co-operation in still further strengthening and developing our growing Association.

There has been some dissatisfaction expressed by provincial members at what they consider the slowness—some have even

called it the stupidity—of your Council ; but we, the Council, demur to the charge—very naturally, perhaps. We think that if the said provincial members were in a better position to judge of the work done, against great difficulties, they would accord us more of their sympathy in place of so much, and frequently such harsh, criticism. For one thing they have called for reforms in our organisation, and they have not been pleased that we did not jump to do their bidding at once. But with the best will in the world we could not go quicker than we have done. No one knows better than the members of the Council the need there is for a revision of the Association, and they were prepared to go into the subject in a very thorough and careful spirit. But they could not get at the matter before, because a more urgent question blocked the way. I refer to the question of the Fowler Institute. While that was before the Association it was useless to begin revising the Rules ; because, in case you had decided to join the said Institute, Mr. Fowler had got a perfectly bran-new set of rules to supersede those we have or might have made. That question being now out of the way, we can and shall proceed to the consideration of the rules of the Association and the way in which they can be amended ; and in due course our suggestions will be submitted to you for approval or rejection.

In this question of revision there is one matter in especial which requires the most careful deliberation. I refer to the granting of certificates. It has become a huge difficulty, and I apprehend we shall have to change our system of granting them *in toto*, substituting regular examinations for the writing of essays, and so on.

Perhaps in this respect we have given dissatisfaction, and caused displeasure. If we have, no one can regret it more than we have done. We have acted to the best of our ability in the interest of the science we are all associated together to advance. We feel that it is very important that all those who go out to teach and defend phrenology with our *imprimeur*, so to speak, should not only be ardent believers in the science—not only earnest advocates—nay, not only able exponents of its truths and teachings, but that they should be so scientifically armed at all points, as to be able to defend it against attack from whatever side directed. When we first started this Association, our aims were humble and our requirements modest, but we think that we are now justified in raising our standard, and making a larger demand on those who wish to go out into the world with our diploma. If you think we are not pursuing a wise course, it is open to

you to replace us by others. But we feel satisfied that we are acting in the spirit in which you desire us to act, and that you will in general approve of what we have done.

The Council are pleased to note the step which has been taken by Mr. Fowler in the establishment of his Institute. It cannot, we believe, do other than advance the interests of phrenology. The Association did not see its way to merge its existence in that of the *naissant* Institute, but we feel and believe that the two institutions can and will work together for the common good they both have in view, and that they will prove to be of mutual aid and strength the one to the other.

With regard to the future we do not desire to prophecy more than we know. We hope to go on as we have done, gaining wisdom and strength from experience. The Council feel that they should not close this Report without referring to some of the work that has been done by individual members of the Association. And, in the first place, we think that honour is due to Mr. Webb, who seems ever to be walking in the van, holding high the standard of phrenology. He has a lynx-like eye for all opponents, and no sooner do they dare to raise their voices in public than he has a challenge for them.

You all know of the famous dispute with Dr. Wilson, which brought out so many champions of phrenology. It is a far cry to Loch Awe, but Mr. Coates, of Glasgow, which is almost as distant as Loch Awe, was to the fore with the rest in defence of phrenology. Many members here present went to Leytonstone to hear Mr. Webb's onslaught upon the "learned doctor" who endeavoured to cast ridicule upon our science, but would not meet an opponent in fair argument.

Another of our members who is deserving of special mention here for the work he has done during the year is Mr. Hollander. He has succeeded in doing what no one else has ever done—read a paper on phrenology before the British Association for the Advancement of Science. It is needless to mention what Mr. Fowler and Miss Jessie Fowler have been continuing to do. The sun and the moon are so constant in their attentions that we do not feel it necessary to mention it to them. We should only refer to the value of their services if they dropped them for a while.

Mr. A. Hubert said : I have pleasure in moving that this Report be adopted as the Report of the general meeting, and that it be printed for the members of the Association.

Mr. Marshall seconded the proposition.

The Chairman then called upon Mr. Hollander, the auditor,

to read his Report. He said : I have carefully gone through the Treasurer's accounts, and certify them to be correct. The balance may appear to be very good for a small society like the British Phrenological Association, but actually it is not as good as it appears on paper ; because on going through the accounts, and making out the balance sheet, I had to examine various items, when I found that out of the £26 in hand I had to make several deductions for rent and other things, so that really there only remains £10 17s. as cash and capital. I must severely criticise either the management or the members, or both together, for not paying their accounts, for I find fifty-five of the members have not paid their subscriptions, some owing for one year, others for two years and over. I would suggest that some rule should be passed to the effect that some of the members, who are behind-hand with their subscriptions (without any reasonable excuse) two years and a half, and who do not pay their subscriptions after having been requested to do so, should be crossed off the books of the Association. I would also suggest that the Treasurer and not the Hon. Secretary should do the corresponding with reference to the subscriptions. This should come under the notice of the Council in revising the rules ; also, that the Hon. Secretary should be requested to lay before the Council a printed list of the names of all the members, together with their addresses ; and furthermore, that the Hon. Secretary should lay all correspondence on the table whenever the Council meets. Ten pounds cash in hand is very little, especially if we are going to take rooms at £25 per year rent. I have been requested to audit the accounts, and I think it my duty to put them before you just as I find them.

BALANCE SHEET.

<i>Assets.</i>			<i>Liabilities.</i>
	£ s. d.		£ s. d.
Cash Balance in hand ...	26 2 8½		Rent for Hall, over due ...
Subscriptions over due from 55 members ...	22 14 6		Mr. Melville's contribution towards Institute Fund ...
	<hr/>		Mr. Brown's contribution towards Library Fund ...
	£48 17 2½		<hr/>
Capital ...	£33 2 2½		£15 15 0

London, 3rd March, 1890.

B. HOLLANDER, *Hon. Auditor.*

Mr. Story said : Mr. Chairman, I will move the adoption

of the auditor's Report, and in doing so I would like to make one or two remarks. As far as the accounts are concerned, we are in about the same position as we were last year. There were certain reductions from the £26 that was then the balance in hand. We have had during the year larger expenses for halls, which makes the balance somewhat less ; and there are, as the auditor has said, more subscriptions that have not been paid. With regard to certain remarks that have reference to me, I can only say the accounts of the Association were always at the command of the Council whenever they liked to ask for them ; the book with the names was not always laid on the table, simply because we have no place to put such documents. We were in want of a room where we could put our things. Again, it is suggested that I lay all correspondence with reference to the Association before the Council. This has always been done with the exception of letters referring to minor matters. As regards the recommendation that the Treasurer should conduct all correspondence with reference to the subscriptions, I do not think we can pass a resolution to do so at this meeting. It has to do with the rules, and must be referred to the Revising Committee.

Mr. Marshall said : I think we are much indebted to Mr. Hollander for the concise and business-like way in which he has brought forward his Report. It is certainly the most business-like statement that we have ever had brought before the British Phrenological Association. We might amend it a little, so far as the back subscriptions are concerned, by making it one year instead of two. I beg to move that a list of the Members' names and addresses be printed and be sent to each of the Members with the Report at the end of the year.

Mr. Melville seconded Mr. Marshall's proposition.

Mr. Hollander : I omitted to state that I was only requested to examine the accounts of last year, therefore I am not responsible for the accounts before that.

Mr. Webb said : It seems to me that we ought to make some resolution with reference to the 55 Members who have not paid.

Mr. Story said : It is a question for the Council, not a question for this meeting.

Mr. Marshall said : It seems to me, according to the Hon. Secretary, that all matters are to be referred to the Council. This is the annual meeting, and the only meeting at which the members have a full chance to speak.

Mr. Hall said : It is the duty of the Council to discuss all

these things before they come to the general meeting. In that case an opportunity should have been given to the Auditor to put these things before the Council first.

Mr. Hollander : I only had a few hours to go through the reports ; I ought to have had at least a week.

Miss A. M. Fowler (Treasurer) : I beg to state that the auditor was only appointed last Saturday, so I could not send in the accounts before then.

After some further discussion, in which several of the Members joined, the Report was adopted, and the subject dropped.

Mr. Fowler said : The next duty of this meeting is to elect new officers for the ensuing year.

Mr. Hubert proposed that Mr. Fowler should again be elected president.

Mr. Fowler said : You may be willing to re-elect me as president, but I decline to accept that offer. I have other things to do, and there are others who can fill the place as well as I can. I have my own Institute to look after, which will take up my time, so please take this refusal to be re-elected as final.

Several other names were mentioned, but Mr. Webb was finally elected as president for the ensuing year.

Mr. Webb thanked the Members for the honour they had bestowed upon him in making him president.

Mr. Donovan : Before you go on with the other business, I should like to propose a vote of thanks to Mr. Fowler for his past services.

Mr. Story : I have great pleasure in seconding Mr. Donovan's proposal. It is a duty that we ought to do, and do heartily. It does not need many words to enforce that motion.

Mr. Webb : That has my whole concurrence.

The motion was carried with acclamation.

Mr. Fowler : I thank you very much for the vote of thanks. It is my life and my business, and I could not very well spend the remainder of my life better than to continue my labours in phrenology. (Loud applause.)

The other necessary officers were then elected, the retiring officers mostly being re-elected ; in a few cases other names were added, but in the main the names will read as before. The alterations will be made in the new book of rules which all Members will receive in due course. A hearty vote of thanks was accorded to the Secretaries, Treasurer, and other officers for their past services. The business of the evening being finished, the meeting came to a close.

THE HON. TREASURER'S STATEMENT OF ACCOUNTS.

Balance.

	£	s.	d.
On 4th March, 1889	18	19	0 $\frac{1}{2}$
Erroneously omitted	1	10	0
	<hr/>	<hr/>	<hr/>
Cash taken from March, 1889, to 2nd March, 1890	20	9	0 $\frac{1}{2}$
	38	2	0
	<hr/>	<hr/>	<hr/>
	£58	11	0$\frac{1}{2}$

Expenditure.

	£	s.	d.
Hire of Memorial Hall from Jan. to Nov., 1889	13	16	0
Printing up to March, 1890	7	18	6
Advertising in MAGAZINE from May, 1888, to March, 1890	4	4	4
Hon. Secretary's Postages up to 2nd March, 1890	5	8	10
Recording Secretary's Post- ages up to 2nd March, 1890	1	0	8
Balance in hand	26	2	8 $\frac{1}{2}$
	<hr/>	<hr/>	<hr/>
	£58	11	0$\frac{1}{2}$

A. M. FOWLER, *Hon. Treasurer.*B. HOLLANDER, *Hon. Auditor.*

London, 3rd March, 1890.

VEGETABLES AND FRUIT.

People need to be frequently reminded of the fact that if they make a practice of using a variety of vegetables and fruit as a part of their ordinary diet the doctor will not be needed to prescribe for them so frequently. Asparagus is a strong diuretic, and forms part of the cure for rheumatic patients at such health resorts as Aix-les-Bains. Parsley is also useful as a diuretic, and those requiring such aid should make free use of it. Carrots are understood by the peasants of Savoy to be a specific for jaundice, and, although they are thought to be hard of digestion, it is only the yellow core that is so. Onions are admitted to be rich in those alkaline elements which counteract the poison of rheumatic gout, and people who are of studious and sedentary habits should make a free use of them, gently stewed and served with other vegetables.

The stalks of the cauliflower if properly cooked also serve a like purpose. Celery has acquired a great reputation as a remedy for rheumatism, and in many cases has proved beneficial. Watercress is prescribed by many medical men as helpful to the liver and lungs. Many other vegetables are useful, not only for their medicinal properties, but as general

regulators of the bowels and as correctives, and withal they contain valuable elements of nutrition which should commend them apart from every other consideration.

Notes and News of the Month.

THE FOWLER INSTITUTE opened on the 12th of March, with every indication of success. Particulars of the meeting will be found in the MAGAZINE. The Classes in connection with the Institute commenced on the 21st. Anyone wishing to join will please make application at once.

THE *Accrington Gazette* says, "The PHRENOLOGICAL MAGAZINE is a magazine of education and culture, it contains some very interesting articles from the pen of Mr. L. N. Fowler, the veteran phrenologist. The phrenological world will derive great benefit from the circulation of this admirable monthly, which is never dry, and includes in its pages some well-thought and ably-written contributions, calculated to enlighten, absorb, and instruct."

OLIVER WENDELL HOLMES thinks that he owes his good health and the retention of his mental vigour in his eighty-first year to the extreme care he has long taken of himself. Never robust, he was still wiry in his earlier and maturer life; but since he reached seventy his hygienic vigilance is unceasing. The rooms that he daily occupies are equipped with barometers, thermometers, aerometers—every kind of instrument, in short, to prevent his incurring the slightest risk of taking cold. He knows that pneumonia is the most formidable foe of old age, and he is determined to keep it at a distance, if possible. He never gets up until he knows the exact temperature, during winter, or takes his bath without having the water accurately tested. He lives by rule, and the rule is inflexible. His time is scrupulously divided—so much allotted to reading, so much to writing, so much to exercise, so much to recreation. His meals are studies of prudence and digestion. He understands the specific qualities of ordinary foods, and never departs from the severest discretion in eating. One might think that it would be a serious infliction to keep up existence by such precise, unvarying methods. But the little doctor enjoys them, having settled firmly into these habits years ago. Philosophic as he is about death, he has an eager curiosity to see how long he can live by following the laws he has vigorously prescribed for himself. He has long

had vigorous theories on the subject of health and longevity, and he relishes experimenting upon himself. He thinks sometimes that he may attain a hundred, which he would dearly like, if he could retain, as he has retained thus far, the full possession of all his faculties.

THE remarkable intelligence possessed by many species of dogs, and their capacity for performing extraordinary feats, has been illustrated by a well authenticated case which has been brought to our notice during the present week. Mrs. J. D. Taylor, of Thames Villa, Portsmouth Road, Surbiton, owns a good specimen of the Dandy Dinmont, $7\frac{1}{2}$ years old, which has given frequent proofs of its intelligence. During the first part of the present month, Mrs. Taylor was staying with her aunt at 88, Marine Parade, Brighton, and she had with her the dog in question, which rejoices in the soubriquet of "Bob." One Friday evening, during dinner, Mrs. Taylor offered some food to "Bob," which he declined to accept. She thereupon remarked to the animal that no doubt certain other dogs (which she mentioned by name, and which were at that time at Surbiton) would be glad to have it. Upon hearing the names of his old companions mentioned, "Bob" immediately pricked up his ears, and flew to the front door. Mrs. Taylor opened the door, and "Bob," after giving a loud bark, as much as to say "good bye," rushed out into the street. As he did not return, Mrs. Taylor became very anxious for his welfare, and advertised for her lost dog all over Brighton, offering a substantial reward for his recovery. She heard nothing more of him until Monday morning, when a telegram was received from Surbiton stating that "Bob" had arrived home, without collar or muzzle, on the previous day. He had tramped the whole of the distance from Brighton (over 50 miles) along a road that he had never traversed before, and, beyond being very tired and hungry, he was none the worse for his singular adventure. To many people this story will, perhaps, sound like romance. To such we can only say that we received the particulars from Mrs. Taylor herself, and that we have seen a copy of the reward bills circulated in Brighton, and the telegram that was received from Surbiton, announcing the arrival of the dog; and we have every reason to believe that the facts as narrated are absolutely correct.—*Surrey Comet.*

MISS FOWLER ON PHYSICAL CULTURE.—Miss Jessie Allen Fowler is giving a series of *Matinées* on physiology, in the Council Chamber at Exeter Hall, on Tuesday afternoons, the first of which took place on the 18th inst. Miss Fowler adopts the satisfactory plan of first delivering her lecture and then personally illustrating her remarks by performing a series of exercises with dumb-bells, clubs, &c. She has been studying the subject of physical development for ten years, and has lectured and held classes in various parts of England and in

Australia. Miss Fowler is, herself, not at all of the brawny, muscular type : she is of medium height, rather spare in build, but with muscles firm and well-knit together, as her wrists showed when she was going through the exercises. Miss Fowler gave a plain, practical address. She pointed out that side by side with the higher education of the mind women ought to cultivate the better development of the body if they were to be fit for the work of life ; that school-girls needed something more than the daily walk, during which they were told to hold themselves stiffly and move with dignity. Walking, observed Miss Fowler, was a very good exercise if taken properly, but the breathing should be full, not from the top of the chest only, and the muscles allowed free play. It was important to remember that all physical exercises, such as riding, rowing, skating and dancing, should never be taken in excessive measure, and the person wearied with brain work should not endeavour to refresh him or herself with exhausting walks or violent exercises which only overtaxed the physical powers and were productive of harm. In the use of gymnastics the condition and capacity of the pupil must be ascertained by the teacher from whom no weakness of constitution should be hid, and the exercises adapted to the individual. It was quite a mistake to suppose that our bodies could not support themselves without props of whalebone and steel, and if these were used the weakness of the muscles was increased until they became useless. No one should imagine that they were too old and stiff to improve : if they felt stiff, it was a proof they needed exercises all the more. Miss Fowler also spoke of the necessity for girls learning the value of warm, easy clothing and thinking for themselves on such matters, and with the increasing popularity of physiology as an educational subject in schools their self-reliance would, she thought, increase. Miss Fowler then retired for a few moments, re-appearing in a very pretty gymnastic dress of light blue soft silk, made with a short skirt and loose jacket tied in with a fawn coloured sash. Mounted on the platform she went through various evolutions, first with the arms only, and then with dumb-bells and clubs, explaining the use of each as she went on.—*Westminster and Lambeth Gazette.*

Correspondence.

A "PHRENOLOGICAL COLLEGE."

To the Editor of the PHRENOLOGICAL MAGAZINE.

DEAR SIR,—The letter you publish this month under the above heading deserves a thorough consideration, and I trust will be well taken up and the matter well ventilated through your widely-circulating

journal. The "signs of the times" phrenologically are good, as indicated by the various suggestions and attempts made in the direction of organization.

The College scheme of Mr. Coates is a first-rate one, and will in substance be ultimately adopted, in my opinion. I say *ultimately* because the practice of phrenology has not yet been elevated into the sphere of a learned profession. It has not yet been sufficiently received into serious consideration by the learned class. Organization on preparatory lines and of a less elaborate kind (such as the "Fowler Institute") must precede it, and this by means of centres of educational work throughout the kingdom.

When the British Phrenological Association has so far amended its constitution as to make it a chief point to found and foster as many provincial branches as possible, then, in due time, the foundation will be prepared upon which such a superstructure, as sketched by your able correspondent (and I am sure no really devoted phrenologist will say that it is one whit too pretentious), will rear its commanding proportions, and thus worthily place the profession of phrenology among its numerous compeers in practical science.

I am, yours obediently,

Margate, March 10th.

F. C. BARRATT.

DR. EADON'S REPLY TO THE EDITOR.—No. III.

To the Editor of the PHRENOLOGICAL MAGAZINE.

SIR—The *Bristol Mercury* of Saturday, the 8th instant, contained a leader in utter condemnation of all the quackeries of society, the writer assuming to be a sort of God-man endowed with the prescience of distinguishing with a flash of his mighty and intellectually all-comprehensive genius truth from error, hard facts from flimsy fancies, inductions from deductions, and to consign at one fell swoop the whole paraphernalia of the may-bes and the may-not-bes, the improbables and the impossibles, into the limbo of memory never to act as such, and of recollections without the power of recalling what had been committed to such-like depositaries.

One might have expected an editorial Jupiter like this one to have descended upon the earth some sixty years ago in flagellation panoply; but in the year of grace 1890, when the marvellous discoveries of an Edison and the heaven-ascending structure of an Eiffel Tower, and, though last-mentioned, but first to excite human wonderment, that huge and ponderous embodiment of 19th century engineering skill and genius, the Forth Bridge, of ever wide-world renown — one would naturally have thought the small draughts of the old-fashioned little "isms" would have been swallowed without one little bit of a wry

face, when boluses of such large size are now administered, and expected to be swallowed without the organ of wonder being so intensified as to threaten admission within the walls of a lunatic asylum by over action of effect.

There are so many of these "isms" referred to, laughed at, and condemned in the article by this "*ectus ovis*" that one would be asking too much space in your valuable paper to reply to more than one, and that shall be the editor's remarks on phrenology. The medical profession, as a body, have always been dead against phrenology and its allied subjects. There was a reason for this—the science (quackery, if you like the word better) had been studied neither as a theory of mind, nor had the inductive method been applied as in the investigation of the other sciences; and no one can believe a subject of which he is profoundly ignorant. This was the case with those who at first opposed phrenology. It was condemnation of a thing of which these parties knew nothing. In due time, however, a little light broke in upon the darkened mind, Flourens, Magendie, and Dalton, distinguished physiologists, suspected that the functions of the cerebellum (the little brain) had not been correctly made out by Gall, Spurzheim, and Combe, and in consequence of this notion they instituted a series of experiments on animals by means of vivisection, which led to the following results, viz., that in moving the cerebellum, the lower animals lost the power of locomotion and the co-ordination of the necessary muscles. This was a happy hit in one sense; but, unfortunately, the profession at once without any further experiments leapt to the conclusion that if the phrenologists were wrong with regard to the functions of the "little brain," the same thing might happen in respect of the cerebrum or larger brain. So, with a shout of jubilation, these 20,000 practitioners wrapt around them their mantle of indifference, and slept the sleep of ease of mind and happy corporeal repose. Time rolled on. Truth will never rest till it asserts itself, and draws some intellect or other to examine its credentials. So it was in this case. One day in 1872 the idea occurred to Dr. David Ferrier to try to furnish the very kind of evidence which the medical profession required to discover the real functions of the brain. From 1872 to 1876 Dr. Ferrier made numerous and most carefully-conducted experiments on the brains of monkeys, dogs, cats, and birds. His plan was at first to make them insensible with anæsthetics, then to remove certain portions of the skull, and thus to expose the brain. When the animal had recovered consciousness, currents of electricity were applied to different parts of the brain, and the results carefully noted. The movements evoked on Ferrier's touching these several motor-centres (organs) with the electrode of the battery were of a most striking character. Touching the imaginative organ, the animal would open its eyes in apparent surprise; if parity were touched, fondling movements showed themselves; if language, movements of the mouth, as if talking with vocalisation, were observed; if reverence, penitential movements of the eyes were the results; and so on with all the other 21 organs of

the brain. These varied manifestations were entirely confirmatory of the functions ascribed to those several organs or motor points by Gall, Spurzheim, and Combe. Dr. Ferrier's experiments with the cerebellum were similar in result to those of Flourens and Magendie and Dalton on that organ, viz., a loss of co-ordinating power in the muscles of locomotion, proving that the organs in the little brain by the phrenologists were wrongly located.

The results, however, of Ferrier's experiments proved most conclusively and directly the location of 21 of the cerebral organs of the phrenologists ; and, indirectly confirmed all the rest. These experiments have since been repeated again and again by distinguished physiologists in both Europe and America, and with exactly the like results.

What then is the inference to be drawn from the inductive methods of the phrenological school, and that of the combined vivisection and magnetic experiments of Ferrier, but that the brain is not only the general organ of the mind, but that certain parts are the special motor, and sense points, or organs, of certain faculties of the mind as the metaphysicians term them. These truths are as certain of proof as any demonstration in Euclid, and it is worse than folly to call them in question, or to harbour any doubt in respect of them. Henceforth, then, let it be known, far and wide, that phrenology is a demonstrated science, and rests on a basis of inductive facts, as firmly and surely made out as those of astronomy, of chemistry, or of any other branch of natural philosophy.

Nor is this all. Long before Dr. Ferrier's confirmations of Drs. Gall and Spurzheim's cerebral philosophy had been brought before the public, Hall, Carpenter, Luys and others, established the functions of two great brain centres, called the thalamus and the striatus ; the first being proved to be the centre of sensation, and the second that of the motor processes. The striatus or back-brain centre was discovered to be the chief points for receiving the incoming nerve-currents of the impressions made upon the organs of the senses, and the thalamus, or front-brain centre, that of the chief focal point through which the organs of the brain send the impulses of motion to the muscles. In fact, the thalamus and striatus stand between the mental organs on the one hand and the outer world of sense and motion on the other ; and the nerve, or odic forces, in passing through these two great centres, not only modify their action, but serve as a sort of storehouse for the retention of all the impressions which pass through them. The older physiologists had given names to these two grey masses of nervous matters, but of their functions they were in the profoundest ignorance.

We have now reached Dr. Gall's view of the building, viz., a comparison of its outward appearance with the internal fittings, *i.e.*, to drop the figure, to compare the outward development of organs with the manifestations of known traits of character. This application of the science to life's duties is where there is a liability to error ; but it is not

more so than in any other science—nay, not nearly so much as in many others which might be named. To excel in drawing these comparisons between organ and manifestation requires a natural aptitude as well as educated skill. All men have not the gift of the first nor the scholastic advantages of the second. From my personal observation, I do not think that the genius of the great George Combe himself shone out very brightly in this direction. A good practical phrenologist should possess a natural aptitude, a well developed organ of comparison, and an acquired tact, the result of experience, or otherwise errors of inference will creep in.

About 40 years ago mesmerism raged rampantly both in Europe and America. Being often called upon, at that time, to take the chair at meetings, I watched most closely the results of the mesmeric experiments, and to my mind the demonstrations were as convincing as those of Dr. Ferrier's. None of these after-proofs could add one iota more to my then convictions of the truth of the cerebral organology. Other people thought differently, saying, "Ah ! all very well ; but the parties are not in a normal or natural condition." Now, just at that point in the year 1841, my friend Dr. Joseph Rodes Buchanan, of Boston, U.S., made a grand discovery, viz., that the organs of the brain of extremely sensitive persons might be *directly* exerted, when in their normal condition, and without being put into the mesmeric state. He put the idea to the test, and shortly found out by this method that sex love, friendship, parental love, and patriotism were not the functions of the cerebellum, that these organs had been wrongly located by Dr. Gall, and would be found in the cerebrum or larger brain on the top and side of the head ; and, what is more, Dr. Buchanan traced most successfully the nerves of the cerebral organs to certain parts of the body, and, in this way, succeeded in making out the first Somatic chart the world has ever seen ; *i.e.*, in other words, he mapped out the faculties of the human spirit on the body as if on a dial-plate. He called this method psychometry, and a large handsome volume lies before me at this moment which contains the psychometric soul,—measurings of scores of men of eminence, drawn out by Mrs. Buchanan, who is a sensitive of a high order, having the power to unfold the character by merely touching the paper which had been well handled by the patient. I tested this lady myself, sent her a little note well handled by me, and the result was marvellously correct. Here is a new power by which to unfold the character, by merely touching the party himself, or by handling any object which had been previously touched by him. This is an advance on the old phrenology in the way of practical application. The doings of the spirit of a man can now be seen painted on the outside, and a first-class sensitive can read off the character like that of reading a book. Monsieur Cazotte did this to perfection when he read off, during the French Reign of Terror, the doom of a number of notabilities in a room in which he was seated, which alas proved only too true, a prophecy of their coming doom.

Phrenology, then, is a demonstrated science, and one which will be considered a charming subject for academical study, mental training and general culture. Psychometry just comes when it is most required to put the top stone on this temple of mento-physiology. Phrenology, as an applied science, estimates the probable tendencies of the character, but psychometry—the soul measurer—determines the actual character at the time, points out one's relations to those around, and enters into one's entire social position with a certainty unknown before. It presents, in fact, a portraiture of a man's feelings like that of an intimate friend speaking from personal knowledge.

In conclusion, it is evident that phrenology is not one of the quackeries or a quackery at all, *per se*, but one of the noblest of the sciences in the grand circle of human knowledge.

SAMUEL EADON, M.A., M.D., LL.D., &c.

Hambrook Court, March 12th, 1890.

What Phrenologists are Doing.

[In sending notices for this column, correspondents will oblige by enclosing their communications in an envelope and addressing them to the office of publication of the PHRENOLOGICAL MAGAZINE. Newspaper cuttings pasted on post cards are an infringement of postal rules and subject to a fine.]

THOSE of our lady readers who were interested in our remarks on the subject of physical culture for women in the last issue of the *Commonwealth* will be pleased to learn that a course of lectures on this subject has been planned by Miss Jessie A. Fowler, to be given on consecutive Tuesday afternoons at Exeter Hall. At her first lecture, on Tuesday last, Miss Fowler spoke of the necessity and advantages of systematic exercise and gave some demonstrations as to how this should be taken. Her talk was most sensible, and we wish many of our readers would go to hear this lady, who is a thorough enthusiast on the subjects on which she lectures. Evening lectures will also be given on consecutive Thursdays.

MISS JESSIE ALLEN FOWLER, the popular phrenologist, has just commenced a series of lectures on "Physiology" in Exeter Hall, Strand. The lectures embrace interesting and instructive talks on "Physical Culture," "Digestion and Health," "The Brain and Nervous System," and in some instances they will be illustrated. The following dates are booked:—March 18, 25, and April 1, the lectures to commence at three o'clock and conclude at the end of an hour.—*Christian Age*:

Home-tried Recipes.

It is hoped that the following recipes may interest many families who are in daily quest of common-sense, economical, wholesome, and well-tried puddings, pies, and supper dishes, and that they may become substitutes for those most indigestible meat suppers which are so universal.—J. A. F.

PUDDINGS.

Raisin Pudding. Take a quarter of a pound of stale bread and crumb it into a basin, one tablespoonful of flour, three ounces of finely-chopped suet, the grated rind of a small lemon, two ounces of brown sugar, a pinch of salt, and three ounces of raisins. When carrots are in season grate three ounces and add ; beat up two eggs and mix with the other ingredients. Boil in a pan half-filled with water, or steam. When ready to serve ornament with blanched almonds. White sauce. Boil two hours.

Boiled Marmalade Pudding. Pour boiling milk over a breakfast cup of vermicelli, and let it remain for ten minutes ; then mix quarter of a pound of stoned raisins, two tablespoonfuls of marmalade, three eggs, well beaten, and two tablespoonfuls of sugar. Mix all the ingredients together, and boil in a well-buttered mould for an hour and a half. Serve with *custard sauce*, to be made in a double saucepan, with half a pint of milk, two eggs, two ounces of sugar, and stir until it thickens.

Vienna Pudding. Dissolve an ounce of Nelson's gelatine, previously soaked in half a pint of cold milk and a pint of boiling milk. When it is nearly cold stir into it an ounce of rice, well-boiled, flavour with vanilla and put in a mould to set ; let it stand for two or three hours. Serve with stewed fruit.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions :—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs ; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent ; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

LILY.—The lady is fairly balanced in body and mind, is comparatively firm, steady, persevering, and rather dignified. She does not trifle, yet is decidedly social, friendly, and companionable. The moral and social brains have the ascendancy, while the intellectual faculties

are of the class that give her unusual practical common sense. She is governed by her experience, is quick of observation, has excellent powers of discrimination. She knows how to make the most of circumstances. She is not brilliant, nor particularly witty or copious in conversation, but when she talks, she does talk. She is reliable, substantial, and can be trusted. She has a predominance of the motive and mental temperaments, and, although decidedly domestic, and strongly attached to place, yet is not so emotional, enthusiastic, or liable to be carried away with the excitement of the occasion, as many are. She is economical and industrious ; would make a good nurse ; is well qualified to superintend and have the charge. She easily adapts herself to those she loves, and, as a wife, would be faithful and true. There is no apparent reason why the parties are not adapted to each other, especially after they become fully acquainted with each other's ways and wishes. She is to be led and influenced by mild and gentle measures rather than be subject to authority or discipline. She has all the indications of long life and uniform health.

E. B. (Birmingham).—The character of this gentleman is very positive and distinct : he is a hard worker, and a most industrious kind of man. He takes the advantage of circumstances, makes the most out of his situation, and uses his powers judiciously. He has a predominance of the motive and mental temperaments. He has scarcely enough of the vital for a good balance. He is not sufficiently quiet, easy, and uniform. His animal propensities and selfish feelings are not specially strong, and he has not a great amount of perceptive power. He is characterized for reason, thought, originality, capacity to plan, teach, take the lead, and be the master spirit. He has great power of will, decision, determination ; is very rigid in his ideas of right, justice, and duty. He is very exacting with himself, as well as with others. He does nothing in a careless way. With him right is right and wrong is wrong. He is governed by law and order. Where circumstances favour kindness, he shows it to a full extent, and may sometimes manifest even more than necessary. He is capable of exerting a very distinct, personal influence. He stands out by himself as an individual possessing a character of his own. He is not only original, but able to copy, imitate, work from a pattern, and do various kinds of work. He has a keen perception of wit and of the ridiculous. He is careful about money matters ; is not only industrious but saving and economical, and he would be just as particular in doing business for others as for himself, if not more so. He was born to command, to take responsibilities, to be the master of the situation. He has considerable taste and imagination ; he wants things in style. He could make a lawyer, preacher, a legislator, and would make a sound judge. He is no trifler, though sometimes he may appear over mild and good-natured and pliable, yet in times of emergency he is all there and on hand. He is more forcible than copious as a talker. He may require the force of circumstances to call out his powers, but when called out he proves his ability.

P. (Chesterfield).—This individual has a feminine tone of mind,

s highly and rather delicately organized, is very susceptible to internal emotions and external influences. He is not adapted to a rough course of life, is better adapted to some intellectual or literary sphere. He has scholastic talent, has extra power in arithmetic, calculation, book-keeping and financiering. He is naturally methodical, systematic, given to thinking and inquiring into the causes of things ; is naturally studious. Memory of events and of the common occurrences of life is not specially good ; but he has good power to commit to memory, and can repeat much that he has heard in a speech. He has some artistic talent that could be shown in engraving, painting, and other nice work. He will always be a student ; has scarcely time enough to devote himself to mere practical life and the application of ideas, for he will be continually on the search for new things. He has rather strong imagination and considerable scope of mind. He takes large and liberal views of things, and his mind covers much ground. He should devote himself to a public life, or to a scholastic sphere, rather than to business or to work. He has but little affinity for common physical labour. His greatest pleasure in exercise is in walking. He is social, and finds kindred spirits easily, and is quite devoted to the objects of his love. In the latter part of his life he will appear to a much better advantage than at first, for the experience, drill, and discipline of life will do him a vast amount of good. He may try to write poetry, and he had better see what he can do in this direction. It will take him longer to become fairly settled in any particular sphere of life than many, because his mind is inclined to wander over so much ground, and he wants to do so much at once without proper discipline and preparation. He does not want to go in the track of others, but wants to explore for himself, to find out things and promulgate his own ideas. He had better follow his own inclinations and do that which is best suited to his own mind, for if he takes others for his guide he will be liable to make a failure of it. If he marries, he needs a good practical common-sense business woman for a wife.

W. S. (Alford).—The lady in question is one of the fully-born kind, favourably represented in all parts : nothing seems to be missing. She is from a long-lived ancestry, some of whom probably lived to be over 80 and 90. She is constitutionally healthy and strong. She is admirably suited to be a wife and mother. She will need to be free to act and talk, for she cannot be snubbed. She is a power within herself, and will be of great service to any man she loves, and she deserves one who is more than an ordinary man. She has good talking power, good planning talent, will make quite correct estimates, will be sound in her judgment, strong in her will, and warm in her love. If she is allowed to do as she pleases, she will do about right ; if she is antagonised and opposed she will prove herself to be a very strong opponent, for she has a great amount of energy and power to resist the influence of others. The excellencies of her organization are sound judgment, good health, and constitutionally long life. She answers to the markings very well.

THE
Phenological Magazine.

MAY, 1890.

MR. EDWARD T. SMITH.

YOU have a very distinct development of temperament, tone and quality of mind, and partake much of the



maternal spirit, either from the mother direct, or from your grandmother through the father's side.

Your mind is emotional, impressible, and subject to strong convictions, but is rather over active, due principally to two causes :—

First,—because of its tone and quality ;

Second,—sympathy with mankind.

Your form of head indicates the possession of three or four prominent qualities :—

First,—a strong domestic nature, social disposition, and ability to fully enjoy home. You are capable of being a strong, devoted friend or lover.

Second,—you have a high appreciation of yourself, and are mainly anxious to act for yourself. Your organization indicates the possession of more quality of mind, pride, and independence than mere display. You are remarkable for your elevated tone of mind, your benevolence and veneration being particularly large. You put yourself high, but human nature still higher, and when a man has fallen it seems to you as though an angel had missed his way. Your sympathy for the human race is extraordinary, and you would give your life to bring about the happiness and salvation of mankind. From a child you have been known for your tendency to worship or adore, and this is a family quality of mind. You know no difference of race or colour in your dealings with men, but at once enter into sympathy with those whose companion you may be, and lose sight of yourself to a great extent.

Third,—your practical talent is strong ; you are a keen and close observer, and possess great natural powers of memory, particularly as regards words and details. You could have excelled in some profession, such as a chemist, electrician, or physician.

Your organ of language is very large, and you are a natural orator, but owing to your large sympathy and powers of imitation you could excel as an elocutionist. You find it easy to tell what you know. You have great ability for order, arrangement, and system, and are disposed to present your ideas in a methodical manner. You remember places visited, and have great powers in the direction of discrimination and analysis, of making nice distinctions, and judging of perfection as regards the relations of things or matters one to the other. You are remarkably intuitive, and are a keen judge of character and motives. As a speaker you will make many points. You are alive to mirth, and enjoy wit and funny stories. Musical power is good. You are not necessarily mechanical, yet are ingenious. Your naturally strong bent of mind is to preach, teach, and assist to form character.

You are in danger of over-doing, and going beyond your strength, for you see so much to be done, you do not know where to stop. You will probably wear yourself out and die in harness, as John B. Gough did, whom, by the way, you resemble in many ways, and, physiognomically, in the upper part of the face.

You are particularly magnetic, persuasive, and attractive in your style of speaking, and are capable of exerting a very wide, yet individual influence.

L. N. FOWLER.

HOW TO SLEEP, AND HOW NOT TO SLEEP— THAT IS THE QUESTION?

In the *Lancet* of last month, in an article on "Sleep," the following sentences occur: "There is a wide-spread impression that it is easier to sleep with the head to the North, than in any other position; but it is very difficult to see any valid ground for this idea."

No doubt it is "difficult" to find a valid reason for a correct position of the head, when an exquisitely refined and most subtle medium, or invisible connecting link, between the natural-body (the soul-body) and the spirit-body, is generally ignored by the physicists of the present day as a vital part of the human organization; "very difficult," no doubt, to explain away many anomalies, and solve many difficulties, in any branch of science, when a part is put for a whole, and subjects are treated of, without bringing a full complement of knowledge to bear upon them.

Something like half a century ago, Baron von Charles Reichenbach, a distinguished chemist in Vienna, the discoverer of creosote, paraffin, and some other substances used in the arts, having been present at a remarkable case of natural somnambulism, was led by what he saw to institute a series of experiments on a number of "sensitives," in order to find out the cause of this abnormal phenomena. These experiments were most carefully and scientifically conducted, and ultimately resulted in the discovery of a new force, more refined, subtle, and delicate in action than electricity, magnetism, light, or coloric, or any other known imponderabilia, and found capable of accounting for many things not dreamt of in our standard works of physiology, psychology, and other scientific books.

This new force, called by its discoverer "OD," was found to pervade every form of matter, far and near. As a cosmic

force, it radiates from star to star, and streams down to us in a great flood, along with the light and heat of our day-star—the sun—throwing its invisible mantle around every created object, large and small, animate and inanimate. It pervades the countless molecules of the human brain, darts along its nervous elongations and minutest ramifications to extremest invisibility, this system serving as the seat or home of that glorious spirit which God at first breathed into man's nostrils. It is felt, also, in its effects, as it works its way down the ganglionic centres—a chain of minor brains situated along each side of the spinal column, and hanging from the cerebellum like a lady's golden chain, this serving as the seat or home of the soul. In short, the influence of the OD force is felt throughout every part of our animal and vegetative life, tending to bind together, and clamp into a visible oneness (though itself invisible), the three great tripartite natures of man : the *pneuma*, the *psyche*, and the *soma*—*i.e.*, the spirit, the soul, and the body. In fact, OD, being more refined and subtle than the other imponderabilia, seems to be the invisible thread, by means of the nervous systems, of manifesting the god-man within, and the human *homo* without ; thus enabling the genius of all ages to quarry out the marvels of creation, and raise our common humanity to a higher platform of excellence.

There is often a real truth in many of the current sayings of society, and that of being able to sleep better with the head to the North is one of them. There seems to be a deep lying instinct in human nature for these generally felt impressions.

Terrestrial OD flows naturally from the North and the South Poles to the Equator. In man, the OD force flows from the head to the feet. This is known by placing a strong-bar magnet diagonally across the ends of a table—the ends being free to act and placed due North and South. A sensitive, holding the palm of the left hand, will perceive a cool sensation if held to the North Pole of the magnet, but a luke-warm, disagreeable one when held towards the South Pole ; thus proving the circulation to be from North to South. From this, it is plain, in answer to the writer in the *Lancet*, that there is an Odylic reason why the placing of the head of the bed to the North will give the sleeper the most comfort during repose as the terrestrial and human Odic circulations are in harmony with each other.

In church architecture, the altar window is always wrongly put on the Eastern side of the building. In this case the congregation sit facing the East with their backs to the West. The position could not be worse, as the OD positive left side

is turned to the OD positive North Pole, and the OD negative right side to the OD negative South Pole. In these positions there are several likes to likes, which, to high sensitives, are positively disagreeable and injurious if not painful ; and not unfrequently to highly sensitive ladies, the effects become so distressing that they often faint and swoon off, not from a mere excess of heat, as is generally thought, but from sitting so long in a wrong position with regard to the Odic Poles. In home arrangements even the Odic position of the furniture should not be lost sight of. The young ladies in playing the piano should have their backs to the North, with the instrument so placed as to look towards the South. In travelling, when parties are highly susceptible to Odic influences, it is well to carry a small pocket mariner's compass, so as at night to be able to regulate the position of the bed, *i.e.*, place the head of the bed towards the North. In cases of sickness the Odic position of the bed is of first importance, as the malplay of the Odylic forces may prevent the medicines, however pathogenetically well selected, from accomplishing all the good that might have been aimed at.

Why worship God looking towards the East ? The Garden of Eden has never been found in the East, although there have been conjectures formed innumerable, and efforts ceaseless to find out the spot, but in vain. It has almost been proved to a demonstration by Dr. Warren, President of the Boston University (U.S.), that man was created and placed at first in the region of the North Pole, that part of the earth 11,000 years ago being a very garden of beauty and loveliness, owing to certain relative positions of the earth, the sun, and the equinoxes. If this should prove to be true—and the huge torrid zone animals already found embedded in the Northern ices seem to sanction the supposition—church architecture will have been theologically wrong in structure through all time ; and we have just shown the position of worship to be antagonistic to the natural circulation of the Odic fluid, whether terrestrial or human, so that, both the temple and the worship are on a wrong principle.

The Odic force most certainly accounts for many singularities observed in society, and which can be accounted for in no other way. Some people hate yellow, but nearly all love blue. Many a maiden likes to look into a mirror and admire her own dear reflex, whilst others turn away with a feeling of uneasiness as if the glass breathed a hateful breath at her. Some people when travelling must have the carriage window down—this is the person who hates a crowd, and prefers sitting in a corner alone. Some cannot eat from a

pewter spoon, as it at once brings on nausea ; others cannot drink tea if boiled in brass vessels without discomfort. Some feel uneasy if you shake them by the hand, but if you continue to hold their hand in yours, why ! it is perfect torture. Nay, more ; some are so sensitive to an Odic touch as to give you only a finger by way of salute. Now, all these apparent singularities, or peculiarities—and many more examples might be cited—are not fancies, or caprice, or mere bad habits arising from a defective education, but have a cause deep-seated in the very constitution of man.

To parties who read this paper and may become interested in the application of this marvellously subtle and all-pervading force, it may save trouble by presenting a summary of the polarities in the form of a table to refer to, so that all the difficulties about sleeping well and not sleeping at all or partially, may be arranged for ; always remembering that when opposite or unlike poles are brought together there is an agreeable pairing, but when similar or like poles are compared as two positive or two negative poles, the feelings induced are unpleasant, restlessness, and hours of wakefulness, are the result.

Table of the OD-force Polarities.

Right Hand is	OD negative.
Left Hand is	OD positive.
Right side (to abdomen)	OD negative.
Left side do.	OD positive.
North Pole of Earth to Equator .	OD positive.
South Pole of do. do. . . .	OD negative.
Northern Hemisphere	OD positive.
Southern do.	OD negative.

In conclusion, if nature had given to man another sense for the perception of OD similar in power to the other five or six senses, we should have stood on a much higher level of creature-formation. We should have then more easily distinguished truth from error, goodness from its opposite, and such men as Talleyrand could not have used speech to hide their thoughts, or words to darken their purposes. We should altogether have been a higher order of being. Our morals would have been more pure and elevated, even if the intellectual faculties could have remained as they are—but they could not. In short, had a seventh sense for the percep-

tion of OD been given to us in addition to the five senses, and one more—Dr. Thomas Brown's "Muscular sense," metaphysically discovered by him and afterwards physiologically admitted to be an additional sense by Sir Charles Bell and other distinguished physiologists,—man would have been far grander and nobler as a moral and intellectual being than he is at present, and consequently, a more fitting peer of the intelligences, in those other orbs of Jehovah's vast empire, located, perhaps, far beyond the telescopic vision of a Herschel or of a Ross.

SAMUEL EADON, M.A., LL.D., PH.D.

AN ACADEMIC POLL.

POLITICIANS, when in a minority, have often been known to express dissatisfaction with the system of determining important questions of legislation by the crude device of counting heads, and have suggested the substitution for it of the alternative system of "weighing brains." An analogous method seems actually to have been adopted at Cambridge, where the "cubical contents" of the heads of various undergraduates have been measured at different stages of their educational career, and the results duly tabulated. The process was not adopted with a view to giving more votes at the "Union" Debating Club to the undergraduates who were found to have the largest brains ; although, if the investigations proceed, we may come to that point in time. Thus a member with a cerebral cubic capacity which is expressed by the figures two hundred and forty would have ten more votes on a division than one to whom nature had merely supplied a two hundred and thirty power brain. It may become the rule, even in the Imperial Legislature, as science advances, for the Speaker, at the beginning of each Session, to take the brain "sizes" of legislators, just as a hatter takes the dimensions of a head when he tries on a new hat. Anything is possible in the scientific by-and-by. Meanwhile, a beginning has been made at Cambridge University, and an interesting account has just been given to the Senate by Mr. Prior, Tutor of Pembroke College, on the authority of Dr. Venn, "as to the cubical development of the heads of University men between the ages of nineteen and twenty-two." The students are divided into three classes, beginning with the men who read for "high honours"; secondly, the low honour men ; and thirdly,

"poll men," which, being interpreted out of Cambridge vernacular into English, means the majority of students, who content themselves with merely taking a degree. Many, unfortunately, have to content themselves with failing to take a degree; but of these academical castaways it is unnecessary to speak. The investigations made, we suppose by kind permission of the undergraduates who allowed their heads to be measured, disclose the fact that the men who read for high honours enjoy an increase of brain mass which is represented by the figures two hundred and forty at nineteen years old, compared with two hundred and forty-seven at twenty-two. This increase goes on steadily through the three years of the undergraduate's course; but, while the high honour men's brains go up seven of these mystic degrees, the second class of brains go up four only. Moreover, in the second class, the brain is smaller to start with. Coming to the mass of degree men—the men who, if they could, would like to end their University careers by taking an "ægrotat in Botany"—we find the astonishing fact that their cubical brain capacity advances from two hundred and thirty to two hundred and forty—in other words, it has a growth even larger than that of the wranglers and classical "tripos" men. Most of this growth, too, takes place in the second year of residence, or just when the students are undergoing teaching for the general examination. The conclusion which the Pembroke tutor wished the Cambridge Senate to draw from these facts was that the general examination was as good an educational instrument as could be desired; and, if we are to judge exclusively by additions of cubic inches to the structure of the brain, he appears to have proved his point.

Let not, however, the individual who boasts a brain of abnormal proportions pride himself too highly on the fact, because physiologists will tell him that other considerations have to be taken into account in estimating the cerebral values. There is the question of quality as well as quantity. The more convolutions your brain possesses, the greater your intellectual* powers; but a small head may have many cerebral convolutions, while a large one—belonging, for example, to a sufferer from what is usually known as water on the brain—may have few. A poet and thinker like Shelley was conspicuous for one of the smallest heads that ever was seen on human shoulders; yet this fact did not prevent him from assuming a tolerably high place in the ranks of men of genius. Possibly in Shelley's case the magnitude of his "heart"—which biographers talk

* If the writer had used the word "mental" instead of "intellectual," he would have been right.

about—was nature's compensation for a diminished cerebrum.* Again, a person who is always wrestling in youth with abstruse problems of geometry or metaphysics finds—or, rather, the anatomists find it for him after he is dead—that in the course of his study the points of communication between different nerve-cells have multiplied, and the brain has thus increased in efficiency, though the weight may remain stationary. Facts like these should prevent the big-headed folk from going about with too obvious indications of the contempt with which they regard average crania ; for how are we to know that inside their swelling "encephalon" there are a proportionate number of twisted nerve-fibres, or that their "grey matter" is, after all, so much in excess of that allotted to other mortals ? Some idiots have been distinguished for the enormous size of their skulls. Dr. Bucknil mentions the case of a male epileptic in which the brain actually weighed sixty-four ounces, and an idiot boy had a brain weighing sixty ounces—an encumbrance which resulted in his premature decease. It is impossible, however, to deny that there is often a real connection between bigness of head and power of intellect,† although instances can be quoted to the contrary. Cuvier, the great naturalist, is supposed to have had a brain as heavy as has ever been recorded, namely, sixty-four ounces and a half ; but Dr. Abercrombie ran him hard with a brain of sixty-three ounces ; and Cambridge men will quote the size of Dr. Whewell's head. Then the microcephalous idiot is just as much a fact in nature as the large-headed imbecile. When the weight of the brain falls below thirty ounces it is generally agreed among anatomists that intellectual operations arrive at a standstill ; but cases have occurred of lunatics with brains weighing only eight or ten ounces. It is a noticeable fact, as showing the tendency of education to increase the size of heads, and to develop gradually a larger-skulled race by the action of the law of heredity, that the average brain of an African is about five ounces lighter than that of a European, and the brain of an aboriginal male Australian quite eight ounces lighter.

If the Cambridge method spreads to the School Boards, we shall soon be settling the subjects for the "fifth standard" by measuring the brains of all the little boys and girls who pass it. Or, rather, in order to make the experiments scientifically perfect, we ought to put a dozen boys to one set of studies, another dozen to a different set, and so on with varying curricula, and at the end of a year compare brain weights and

* Query : Was it not the cerebellum merely which was small ?

† "Power of intellect" here stands for "power of brain," or "mental power." If these people would not confuse them so !

brain sizes. There is a certain difficulty in weighing a human brain until its possessor dies, but this obstacle might be surmounted. The foundation of the system lies in the theory that the greater the increase of cubic inches in a given time the better the educational course which is being pursued. This, however, is a matter of some question, as we have said. The average Cambridge undergraduate of the "hoi polloi" class already entertains doubts as to whether too much is not required of him in the way of intellectual attainment ; and when he hears that his cerebral mass is actually increasing by leaps and bounds he may take steps to counteract the unnatural process. He may spend a large portion of his days on the river, or run over to Newmarket rather more frequently. He may give himself up more entirely to looking after female country cousins, or the relatives of brother undergrads, when they visit the University on pleasure bent, in the spirit of the academical "triolet" which begins, " My bills are unpaid, My hands are in blisters ; What a slave one is made, To another man's sisters !" and another verse of which runs, " Mind your oars ! Easy all. We will get out at Ditton. Just hand out a shawl For the ladies to sit on." Or, he might adopt the more nefarious practices of Tom Crib in the "Heathen Pass-ee," and "On the sleeve of his shirt He might manage to get What he hoped had been dirt, But which proved, we regret, To be notes on the rise of the drama, A question invariably set." Somehow or other he would try to avoid the involuntary enlargement of his brain, which he would be certain to ascribe to the effects of shameful educational "overpressure" by dons. Whatever may be the outcome or future developments of the new brain-measuring system of fixing youthful studies, it is at all events interesting to have the "state of the poll" at Cambridge declared on good authority.—*Daily Telegraph.*

CHARLES KINGSLEY AS AN EDUCATIONAL IDEAL.

No one who has stood under the white bust in the Abbey Chapter-house to see the simple motto, "Quit you like men. Be strong." No one who has read one of his writings ; hardly anyone who has heard his name can have failed to know something of the inspiration which Charles Kingsley brings to the life of the present day.

Just fifteen years ago, in the early days of 1875, he died, and to those at least who know the ancient city of Chester,

it will seem as if it were not even so long since he ceased to go in and out among the people, to conduct botanical rambles outside the walls, to arbitrate—on, at any rate, one occasion—between an unruly College and its Principal. His name to this day is constantly on the lips of Chester men and women. The Natural Science Society there owes its existence to him, and glories in the fact ; his “Life and Letters” are the best-thumbed volumes on the shelves of the Grosvenor Museum, and more than one scientist of no mean order will tell with pride how he owes his knowledge of, and his interest in, nature, to his influence alone. In Chester, in short, the man Charles Kingsley being dead yet speaketh.

With the facts of his life we are all familiar. How he was born in Devonshire, in 1819, the year of the Queen’s birth, we know. That through life there went with him the memory of those childish days, the glories of Clovelly life and air, and the pictures of the wild broken coast, and the life of the fisher-folk, till all culminated, years after, in the sweet sadness of his “Three Fishers,” we have all been told. His father left Devonshire and went to London, and thence to the Fens ; and from every spot wherein the family tent was pitched, the boy Charles carried away thoughts and impressions which coloured his thinking for ever after. The years went on, and after a student-life passed at Cambridge, he was made Curate, and finally, Rector, of Eversley, in Hampshire ; and here he married, and once for all made his home, in the year 1845.

Of his marriage, it is scarcely the part of the outside world to speak. Some of us cannot open the collections of private letters—which the morbid curiosity of the present day demands as surely as the Church bells toll the tidings of departed greatness—without a feeling of violated honour, and a sense of shame, such as it might bring to open a man’s drawers and read the same documents while he was yet alive. But if anything could completely obviate this feeling, surely it would be the fact that they were published by a wife as dearly loved and honoured as was Mrs. Kingsley, and that as a vindication of the memory, and not a mere unveiling of the privacy, of their subject. Indeed, the latter thought seems almost to make it a duty to read the two volumes which bear this name, and one finds at least corroboration in the delicacy with which every line has been suppressed that was written in the sacred confidence of personal intimacy. This being the case, and the world being so wisely excluded from the private life of Canon and Mrs. Kingsley, it is lawful to see just one thing, and that is, the evident completeness of their home. It was no irritation

from behind the scenes that drove this man into public life. His family and home were as perfect as mortal may have. Through all there ran the strong binding thread of the spiritual life—which means emotional discipline—penetrating, all-pervading, and self-imposed, and reflecting strength and beauty from an ideal that lay in its turn on the sunlit heights of the mountains far beyond. This is a man to whom we pay instinctively the highest homage that we can give—“the more closely we had known, the more we should have respected him !”

And this home-life lasted in all its fulness and sweetness for thirty years. In 1860 he was made Professor of Modern History at Cambridge ; in 1869 he became Canon of Chester ; and, in 1873, Canon of Westminster, but throughout, Eversley was still his home, and thither he always returned when the duties of other places were accomplished.

And these thirty years were amongst the most memorable in English history. Almost, they have been to us, a second Renascence. The first railway in 1830, and the Reform Act of 1832, had inaugurated it, and Charles Kingsley—who was a small boy at school when Stephenson made his memorable journey from Manchester to Liverpool, and who had seen the blazing houses of the Bristol Riots in 1829—was emphatically a son of the new era. So the voice that spoke from Eversley Rectory in later years was in every sense that of a man of our own day. Any who would make him their ideal would not light their torch at the beacon-fire of some prophet or seer of an earlier epoch, as Pestalozzi was ; they would simply, to use his own words, catch the lamp of truth, before it expired, out of the hands of a man who had already borne it through the full crush and strain of modern life.

Yes ; Charles Kingsley gained his experience of life and life's laws in the same school as ourselves—in thirty years of gradual amelioration of the condition of the working classes ; thirty years of revolution, Chartism, free trade, railways, penny post, emancipation, education, and a curious jumble of mediæval ideas and ever-widening conceptions of the universe ; through the labours of such men as Darwin, Huxley, Tyndall, Lyell, and Agassiz.

And during these thirty years of quiet, intense home-life in the Eversley Rectory, he was deaf to none of the many voices of his time. He saw with clear vision the tendencies of the social and political movements of the day, a thing which is given to few to do. He realised the force of the new popular enthusiasm which had gathered its huge waves up in the French Revolution of 1789, to break on our English shores as Chartism forty years later ; and, without

any vain attempt to beat it back, he strove to direct it to some extent, and modify its action as much as possible for the good of those who participated in it. It was in this mood that he wrote "*Alton Locke*" and "*Yeast*," in 1849.

From this time, Repeal of the Corn Laws having consummated free trade, Chartist began to die out, but Charles Kingsley had made himself known and loved, and his books as they commenced to appear ("*Hypatia*," 1853; "*Glaucus*," 1855; "*Westward Ho!*" 1855; and "*Two Years Ago*," 1857; together with copious essays and lectures) were eagerly read by thousands in this country and in its colonies. These, with royal chaplaincies and a tutorship to the Prince of Wales, had now made him, while not yet forty years of age, a famous man; and the wonderful and accurate learning embodied in "*Hypatia*" and "*Westward Ho!*" together with his lectures on Alexandria and her schools, brought him in 1860 the richly-earned Professorship of Modern History at Cambridge. This was given up when he became Canon of Chester in 1869, an appointment which had in turn to be renounced when he entered Westminster Abbey in 1873. It is curious to note that during the last years of his life no historical work issued from his pen. After the "*Water Babies*" and "*Hereward the Wake*," scientific lectures and essays are the only secular matter which he gives to the world. Such is an outline of the life. Of the tender and rarely-gifted soul who dwelt thus among the Hampshire moorlands, who can adequately speak? Brimful of the rich artist-delight in colour and form and grace, we need not wonder at the "dazzling effects" (as Max Müller says) of his descriptions of scenery. Beauty was to him, as he expressed it, "the wayside sacrament," the great fact, the theophany of nature; and if he occasionally gives expression to views that sound, in the prosaic ears of the nineteenth century, mystical, we should do him the justice to acknowledge that this is not the outcome of a superstitious nature, but an exaggerated development of that same eager reverence of knowledge that made Linnæus kneel bareheaded at the sight of our common gorse, to thank God that life had been spared to him to see it. The world appeared ever to him full of transcendental meanings, only to be seen, like the visions in magic beryls, by the pure in heart; and this truth he has expressed in his tale of the marvellous things that a soul saw when it was cleansed. Even in nature the deep philosophic thirst of the scientist was a smaller factor, perhaps, in his delight than the artist's blended joy of perception and trembling sympathy of Creatorhood.

Great scholarship of course lay at the root of this complete-

ness of sensation. Knowledge and emotion must both be brought to bear on objects of observation ere mortal man could give birth to the Prose Idylls. No one could seize instinctively upon the points of a fine picture, or the distinctive traits of a nation's ballads ; such power must come in one way or other by methodic study of form and measure. And this power, with its antecedent training, Charles Kingsley had. Nay, as we study his life more closely, we wonder what sphere of activity he did not touch. Hunting (though rarely), fishing, boating, shooting—with all these he had sympathy ; yet the full-springing fund of poetry within him lost none of its force and purity because he understood the love of horses, and could enter into the feelings of sporting men.

Perhaps his most powerful message to the world was the command to live a healthy life. "Away with the morbid, the sickly, the sentimental ! Away with women's waists and national pestilences ! Away with the beauty of ignorance ! and receive ye the gospel of roast beef and lawn tennis, of cold baths and cricket, of fresh air and woollen garments, instead, O ye people !" This teaching, together with his own natural unfettered life and opinions, was what made Charles Kingsley the so-called "head of the school of muscular Christianity." He himself would fain have substituted the term chivalry, and repudiated the parentage ; but when we remember his intense antipathy to all hysterical asceticism, and remember that chivalry existed side by side with, and not as a protest against, this, we are ready to acquiesce in the modern phrase, and attribute as an honour what was perhaps intended as a gibe.

And yet, amid a life of such varied activities and unwearied energy, his chief interest lay in the geology and botany and natural history of Eversley. To him, every plant told its story, every mountain bore a history, every valley was a problem. He knew the cry of each bird and wild thing, and he and his children shared in kindly interest in the domestic life of the caddises and water-efts of the rectory pond. To him each glance meant myriads of latent ideas. Oceans had rolled over the spot where he stood, and his span of imagination grasped the fact. The boulders around him bore, mayhap, the traces of glacial action, and to his mental vision the thought would bring at once the picture of the great shadowed and rent ice-sheet, with its long limb-like lines of *débris*, its head resting in the *nevée* of eternal snows, and its prostrate form grinding out the sides and kneading the soil of the valley below. The great spectacle of Force and Matter producing

the Universe, which is God in Nature, was thus ever present to this man, who was at once classicist and mathematician, philosopher and theologian, scientist, sportsman, artist, and priest. Do we ask how such a character can serve as an educational ideal? In the first place, as a protest. It cannot be too clearly urged—we speak chiefly here of the education of girls—that this science is at present in the merely empiric stage. Pestalozzi's doctrine is now a hundred and odd years old—that a child's training should begin in the cradle, and should follow the natural course of self-evolution of the faculties—yet no trustworthy or complete plan of execution has yet been drawn up, and the only really great discovery with regard to such a plan—that of the kindergarten system by Friederich Fröbel (1782-1825)—has yet to win the popular ear in the greater part of England.

At present, amongst the educated classes every mother has some objection to make to every school, and every objection is right. We have not yet learnt to combine the maximum of advantage with the minimum of disadvantage. Quite a new phase has entered of late years into the life and need of women. Womanhood is becoming daily a larger factor in humanity; and this means not only that with all the old household and domestic cares still on her shoulders she has added social and political responsibilities of another type, but it means that women now are called on as never before to be thinkers, to enter into the *zeit-geist*, and learn to measure the intellectual pulsation of at least their circle and their day.

And to meet the new demand, a large supply of instruction is, of course, offered to girls during their school-years. But no one would attempt to make a child robust by cramming it incessantly with nutritious food; and this danger of receiving a heterogeneous and indigestible mass of solid learning is the error to which girls' education is to-day most prone. More food than the body could assimilate would not be good, and our test of assimilating power is hunger: more knowledge than the mind can appropriate and spontaneously think out is not good, and the test of its fitness is interest. Yet if we adopt interest boldly as the test of merit in girls' education, we shall find that there is room in a woman's mind for more than we have thought, perchance. We must remember that more training is implied in the judicious observation of three facts than in the accurate remembrance of a dozen, and no education that strove to catch the tone of Kingsley could doubt which of the two it was its *rôle* to pursue. And this error of learning *about* facts, instead of learning through them, *Voluntas Dei in rebus revelatum*, is a principal pitfall in almost

every system of teaching that the wit of man has hitherto devised.

The second point in which Charles Kingsley seems a specially significant ideal, is his universality and flexibility of mind. Most of us have a horror of what is aptly called a "smattering of many things and a knowledge of none." But we must remember that "smattering" means superficiality, and it is as easy to be this on a large scale as on a small. The antidote must lie in learning every fact as it is in itself, and in its history and relationships. Every part of a school course or of an educational course should stand in indissoluble union with every other part. It is true that a parent, if he care to exercise it, has a right to select the various parts of this harmonious whole, but it is then the teacher's function to see that the plan thus formed is thoroughly carried out.

Of course, a school that called itself by the name of Kingsley, would be strangely beside the mark if a knowledge of science were not included in its curriculum ; yet "science" does not sufficiently express the larger and keener sense of perception which was so distinctive of Charles Kingsley. In it, as he said, "the Great Master of the universe speaks face to face with every little child ;" it is in fact the listening with the ear downwards to hear the will of God revealed in things. And this method of knowing is as applicable to art as to nature, to languages as to physics, to music and to history as to electricity.

Kingsley's reverence is the last point on which we would touch. The classical scholar and the Christian clergyman was likely to find safeguards in two directions against harsh iconoclasm and abrupt nihilism ; and too reverent in the teaching of children one cannot be.

"Earth's crammed with heaven
And every common bush afire with God,
But only those who see take off their shoes,
The rest sit round it, and pluck blackberries,"

says Elizabeth Barrett-Browning.

"Those who see" but as fire lights fire, so those who see, alone can teach others to see, and reverence with knowledge can only be kindled at an altar on which burns like flame. It is only by approaching education in this spirit that enduring work can be done. Every child is a possible Christ-child, and the responsibility of warping or developing the beauty of life for him is a very serious one. True, there are not wanting those who say that the attempt to follow out "Whatsoever things are true . . . lovely . . . and of good report, think on these things," is extravagantly large ; that

school time is too short for so much work to be done in it ; and so on, and so on, and so on. Yet, thus to commence weaving the pattern in its completeness from the beginning, seems to be the message of Charles Kingsley's life. And that other quality of extensibility, so essential to an ideal, is surely his. No one who began with him need be deterred from aiming higher if he can. None would have urged him to do so more eagerly than the master of his choice.

But if it were true that the aim was too high already, that the attempt was too much for humanity to achieve, one could only reply that the very existence of Christianity was proof of the blessedness of aiming at an ideal placed far beyond reach of actual attainment.

Too high an ideal could surely hurt no one, least of all those who, in the sacred office of education, find themselves able by living on the heights to exert a moral leverage extending to generations whom they themselves can never see.

MARGARET E. NOBLE.

Kingsley Gate, Wimbledon.

THE LIVING AIR.

WHAT a wonderful thing is the air in which we live ! Surrounding the earth like a garment many miles in thickness, it seems to contain within it the very principle of our being. Without it no life is possible ; let it become vitiated, and we die. There is nothing that we know of so essential to our well-being. Food seems to be our greatest necessity ; but food is impossible without air, for to the plant also the air is life. Without it, there can be no green grass or tree ; without it, no " painted lily ; " without it, no sweet fragrance of the pine or of Nature's *pot-pourri* of the hay. In its absence the fresh springs would cease to flow, and oceans would remain still, stagnant, and lifeless.

The air is thus, in a deeper and wider sense than is ordinarily understood, "the breath of life." It is so much the breath and principle of life that we cannot have too much of it. This has been a growing conviction for many years past. It is a truth enunciated long ago by learned men who made the human organism their life-long study, and it has been emphasized by physicians and others ever since, so that the books are full of it. But it takes a long time for wholesome doctrine to percolate down to the masses, and so to thoroughly rout every vestige of ignorance and prejudice. Hence we still meet with people who are afraid of the air, and whose houses

in consequence are arranged and fitted in the best possible manner for the vitiation of the air. They therefore live most of the time in an atmosphere which is never perfectly pure. A "draught"—of pure air—is to them a thing to be avoided as much as the deadliest of deadly sins. A draught is not pleasant, and it is not good or wholesome ; but pure air may be admitted to our houses without creating draughts. Pure air, however, even at the expense of a draught, is better than to live in a vitiated atmosphere, in which nothing can thrive as it should thrive. We cannot be as healthy, we cannot be as intellectual, we cannot be as moral, in impure air as we can in the pure fresh air of heaven. This is a doctrine that cannot be too much or too often insisted on in these days of intense activity of thought, when more than ever before in the history of the world we seem bent upon putting our human "house in order."

One of the great *desiderata* of the times is the discovery of a method of ventilating our houses and public buildings, so as to keep the air purified without creating draughts ; and the man who perfects such a system will deserve very highly of his country and of the world at large. Another notion that we need to get rid of is, that the night air is bad. It may be unwise for delicate persons to go out into the cold at night, not because the night air is bad, but rather because at night the system is more exhausted than during the earlier part of the day, and, therefore, more susceptible to cold. No, the air at night is as pure as it is during the day—often purer because less permeated with dust and smoke—and, with proper precautions, may be enjoyed with as much benefit as the air of the morning, or of noon. The precaution to be taken is to see that the clothing should be adapted to the temperature, if it should be falling. An eminent living physician advises the taking of an extra wrap or light coat to all who go out even on summer nights.

But, with such precautions, we cannot have too much of the free, fresh air of heaven. It ought to be everyone's thought to get as much of it as possible. In these summer months especially we cannot live too much out of doors, or turn our houses too much out of doors, that is, keep windows and doors open. To those who live in large towns this is a double need, because under the best of conditions the air of populous places is never so pure as it should be, and hence it requires a larger amount of air to do the same good that a smaller quantity of the air of the country would effect. Town-dwellers also should never lose an opportunity of enjoying the country air, even if but for a few hours. It is always worth

a railway fare to get a breath of the air of the downs or of the seaside as a panacea. One need not even go so far as that : there are in the immediate outskirts of London, as of all large towns, stretches of country road or breezy common, an hour or two on which amply repay the time and trouble in largesses of health and vigour. In short, we cannot too much bear in mind that the open air is Nature's hospital, and that there more than anywhere else we find our better selves both physically and morally.

A love of the open air is the beginning of health, and it is the best guarantee of long life. It will be found that nearly all those who live to a great age have been lovers of the open air, and have lived a great deal out of doors. Being cooped up too much indoors causes one-half the people to die before their time. If they would have gone out more—breathed more fresh air, they would have lived. Go outdoors—ride, walk, row, bicycle, play, even sit outdoors, and you put a premium on your life. And you do that because you increase your enjoyment. There is that in the air which not only freshens, invigorates and strengthens the body, but vivifies the mind, and enlarges the heart, making it, as it were, more at one with the greatness and eternalness of Nature, in which there is no pettiness or morbid brooding. It does one good sometimes to get away from the affairs of the house and of business, and that can best be done by throwing oneself for an hour or two into the great restorative element that fills all "outdoors" and renews our lease of life.

A. T. STORY.

CRIMINALS : THEIR NATURE AND RESPONSIBILITY.

THE study of "Criminal Nature" is to-day pursued with the greatest zeal in almost all Continental countries, and has resulted in two Congresses—one held in Rome in 1886, and another in Paris last year. The study of the nature of criminals, the study of their physiognomy, the pathology of their brains, and the defects of their skulls, form now a distinct branch of science, known under the name of "Criminal Anthropology." Criminal anthropology, again, is based upon phrenology, and took its rise from it. This fact is acknowledged by nearly every criminal anthropologist, and a writer in the *Journal of Mental Science*, Jan. 1890, says : "Gall was a man of unquestionable scientific genius, who thrust aside for ever the credulous fancies of the physiognomists ; he

has been described, not altogether without reason, as the founder of the modern science of criminal anthropology. He was certainly its most brilliant pioneer. Lavater believed in the homogeneity of the human organism, but he was not a man of science, and he had been content to study the surface of the body ; Gall, with true scientific instinct, tried to get to the root of the matter : he studied the brain, sought to differentiate the functions of its various parts, and the effects of its varying development on the skull. For Gall, the varying development of the brain was the cause of the divergent mental and moral qualities of the individual ; he was firmly convinced that all the facts of psychical life are rooted in the physical organization ; he wished to write the natural history of every primitive moral and intellectual force in health as well as in disease. To the best of his ability he carried out this programme in detail, by an unceasing study of all the varieties of the brain and of the living head that he could find ; he pursued his studies throughout Europe in lunatic asylums and in prisons, as well as among the ordinary population, and he foresaw the extent of the applications of the science he was opening up to medicine and to law, to morality and to education. While his work extended far beyond the borders of what we should now call criminal anthropology, he devoted much attention to the problems of the criminal organization, and even to its varieties, many of his observations according well with the results of recent investigation."

One of the first discoveries of the founder of phrenology was the anomaly in the shape of the heads of criminals. He observed the unsymmetrical predominance of the temporo-sphenoidal bone and the steepness of the parietal bone. This agrees well with present-day observations, which, however, are much more definite, owing to the increased knowledge of brain anatomy. Not only does Prof. Benedict, one of the most renowned criminal anthropologists, confirm Gall's observations, but he gives, unlike other scientists, the founder of phrenology the credit which is due to him.

According to the writer above quoted (*Journal of Mental Science*), however, Prof. Benedict takes the credit of having discovered a resemblance between the brain of habitual criminals and that of carnivorous animals, a credit which is not due to him, but to Gall, who by a comparison of the brains of carnivorous animals with those of murderers discovered the carnivorous instinct, or, as he first called it, the propensity to murder. It is now known that the steepness of the parietal bone—Benedict uses the term "vertex-steepness"—is caused by a deficiency of the ascending frontal convolution,

that part of the brain which corresponds to the location of "conscientiousness." Huschke is the first to mention this defect, in 1854. Speaking of a woman who murdered her husband, he says, the dissection of the brain showed the left ascending frontal convolution to be of only half the length of the right ascending frontal convolution. This is now a very common observation, and was noted in Guiteau's brain. As may be expected, when the skull does not bulge out, the over-activity of the thievish, carnivorous, or secretive propensity shows itself by thinning the bone in that place. Thus Dr. Max Flesch observed a "porous" temporal bone, while the rest of the skull was of a normal thickness.

The brain of criminals (meaning criminals by heredity) cannot be called so much deformed as degenerate, for it stops short at the development of the animal brain, instead of progressing to the shape of the human brain. Such cases, of course, except where insanity (or epilepsy) is the cause of crime. In accordance with this fact, the frontal lobe—the seat of the intellectual faculties—is not as large in proportion to other brains, and consequently there is less power to control or restrain the animal impulses. Benedict lays, also, great stress upon the deficiency of the occipital lobe, the flatness of the occiput, which, in phrenological interpretation, means an absence of the social attachment, a feeling of domestic relations answering to the idea home. But in this respect the criminal brain does not, as he thinks, resemble the animal brain, for as Meynert has shown, the occipital lobe of the monkey weighs 20% of the frontal, whereas the proportion of the same in man is 15%. Men with a large occipital lobe, therefore, have a greater resemblance to monkeys than those with a small one. Of course, brain-deficiencies are followed by peculiarities in the whole organization; and, in consequence, we have men who observe such details as the formation of the ears of criminals, their walk, &c.

The question may be asked: Why is Prof. Benedict not a phrenologist? The answer is: Because he never studied the subject sufficiently. He is highly impressed by Gall's genius, but he knows nothing of the phrenological doctrine as propounded by Spurzheim and Combe. He considers the chief defect of Gall's doctrine, that he imagined complicated psychical processes to take place in a definite part of the brain—for instance, murder. True, Gall spoke of a disposition to murder, which he afterwards modified to a carnivorous instinct, but he was aware of the existence of a fundamental faculty, only he could not discover it, and he would not accept Spurzheim's term destructiveness. Had Benedict looked at any of Combe's

works, he would have a different opinion of phrenology ; he would see that phrenologists attribute crime to excesses and defects of the whole constitution and mental organisation, and do not seek, as he says of them, the foundation of crime in altogether local development.

That the habitual criminal is really the result of heredity is shown by Rüdinger in his work on the "Differentiations of Brain Convolution." He states that the shape of the head as to length, breadth, and steepness, is already determined in the foetus by a different growth and arrangement of the convolutions ; they are grouped in different directions, and thus the shape of the skull after birth is predetermined.

Here the question of responsibility enters—the very question which divided the phrenologists in 1850. Let me first explain what constitutes liberty. If I had only propensities, I should be bound to move in their direction, and my path could be accurately predetermined ; but I possess also sentiments antagonistic to the propensities ; therefore my path is between the two, and can be only approximately determined. As a human being, I am also endowed with intellectual faculties, which are again opposed to either of the former two ; being drawn in a third direction, my path is still more difficult to determine. Now, as is known to you, there are a number of propensities with antagonistic tendencies, a number of moral faculties with opposing impulses, and intellectual faculties of great variety. In an evenly balanced head, there is, therefore, the greatest amount of choice, the greatest amount of liberty. According to the excess or deficiency of any one faculty, however, that balance is disturbed, and liberty is diminished. What constitutes freedom, then, is the complexity of the various faculties which make up the human organization.

It is evident that the criminal has the animal propensities in excess, and the moral and intellectual faculties correspondingly deficient ; the direction that an individual so organised must take is that of the animal impulses ; at all events, he is predisposed to take this direction, unless his moral and intellectual organisation is cared for from his earliest childhood. And is it cared for ? In some individual cases, perhaps yes ; in the majority, decidedly no. What is done when we discover a thievish propensity in a child ? We invariably punish it ; that is to say, we act on the theory that memory of pain increases the faculty of prudence ; we act on the emotion of fear, we increase the child's cautiousness. But is cautiousness not another propensity ? So ignorant are human beings of their own nature as to suppose

that an over-active propensity can be restrained by calling out another propensity. The chances are that an active cautiousness will arouse secretiveness, and the child will avoid punishment by cunning devices. And are not all our criminal laws based upon the same erroneous principles. Punishment, degradation, &c., may have a beneficial effect on some organisations, particularly the cultivated, but they do not restrain the criminal, whose organisation resembles more the animal than the human being, and according to Lombroso 36% of all murderers, and 23% of all thieves, belong to this very lowest type.

Professor Benedict says : "The modern doctrine of judicial punishment is evidently in a false condition, because it always sets free criminals whose relapse is certain. Of what importance, then, must it be if the anthropological study of the brain, the skull, and the head, offers us the prospect of determining, at least in a portion of the cases, with scientific clearness, when a relapse is to be expected. Criminal psychology must supply the factors of which, in each special case, crime is composed, and must determine whether imprisonment and education have eradicated or can eradicate a part of the factors and the predisposing impulses."

Let me remind you of Gall's words : "The evil-doer is one whom we must destroy, not punish. There can be no question of culpability or of justice in the severe sense ; the question is of the necessity of society preventing crime. The measure of culpability, and the measure of punishment cannot be determined by a study of the illegal act, but only by a study of the individual committing it."

Mr. Havelock Ellis, the writer in the *Journal of Mental Science* already referred to, deplores the absence of interest in criminal anthropology in England. He enumerates the most eminent criminal anthropologists of Austria, Germany, Italy, France, Belgium, Spain, Portugal, Russia, United States, and South America, and expresses his regret that "the chief English medical journal, while furnishing admirable reports of other congresses, gave not the slightest account of the International Congress of Criminal Anthropology recently held in Paris. At this Congress official delegates came from all parts of the civilized world, from Russia to Hawaii (including two from the United States), not one from Great Britain"? He continues : "When some twelve months since I issued a series of questions dealing with some of the main points in the investigation of the criminal to the medical officers of the larger prisons in Great Britain and Ireland, the answers that I received, while sometimes of much interest,

were amply sufficient to show that criminal anthropology as an exact science is yet unknown in England. Some of my correspondents, I fear, had not so much as heard whether there be a criminal anthropology."

My experience is that people are afraid of having a class of criminal automata, of having every rascal plead guilty brain-matter in extenuation of some crime. But did not a similar sentiment reign against Galileo, whose contemporaries would not believe in the movements of the heavenly bodies, for the world could not possibly be an automaton. People refused to look through Galileo's telescope, though he begged them to see for themselves. Surely at the end of the 19th century, no sentiment should deter men from an intellectual inquiry; and an examination of the brains, crania, and psychical nature of criminals can only add to the understanding of the working of our mind, to the understanding of human nature.

BERNARD HOLLANDER.

THE BRITISH PHRENOLOGICAL ASSOCIATION.

THE monthly meeting of the British Phrenological Association was held at Imperial Buildings, on April 1st, when a paper was read by the President, Mr. James Webb. Subject: "Recent Physiological Research in regard to Phrenology."

A short discussion followed the paper.

Mr. Story, who occupied the chair, said: Although Mr. Webb has given us such a minute paper on this subject of phrenology and the later discoveries in physiology, he has only touched the fringe of the subject. There is still room for all of us to examine the works of physiologists and anatomists and their discoveries, so as to keep ourselves abreast of the times. They go to work to a great extent blindly with regard to phrenology. If they are not already determinedly opposed to it, there are no phrenological workers in the ranks of the physiologists and anatomists who are working from our standpoint. Until such time, therefore, as we get phrenologists so educated in the scientific sense that they will pursue phrenological investigation on the lines of Ferrier and the Continental physiologists, we ought to watch the works of these men, and show that they are simply looking for physical results, kicking out the hind legs, &c., overlooking the fact of the ideation which lies at the back of expressions; because after all when the animal moves

its tail, leg, or tongue, that result is not arrived at simply by the mechanical method that we see in the movement of the pump. There is, between the irritation applied and the result, something in the animal's mind. The irritation produces different results according to the centre or convolution excited. In the case of excitation of the region of destructiveness, we get the lungeing forward and the lashing of the tail in the hyena. So in the case of the sheep and the cow : under excitation of parental love, we get the gentler motion of the tail, looking behind, &c., and the cry of the mother ; and in all these cases the physician, with what he calls his scientific method, simply sees that result and nothing further ; he does not see that there is an ideation, a thought, in the case of the cow. The brain is not simply a piece of mechanism to move the tail, &c., but an instrument of thought. The result comes because the stimulus makes the cow think of its young one. And so, in every case, they are doing phrenological work, but in such an insufficient manner that phrenologists should watch them. That is what this Association is for : to keep close to the study of phrenology and watch the results which are obtained by scientific men in whatever field they are working. There is room for each in a special branch. There is also a wide branch, a prolific field, for those who like to take up the subject of the metaphysics of the question and mark how the mind acts through these organs. We have seen how infertile the philosophy of the past generations has been, each generation producing a fresh philosophy which the next saw on its death-bed—no sooner promulgated than they have been found insufficient for all the operations of the human mind. But in phrenology we have the groundwork which, if anyone will take it up and pursue it thoroughly in a metaphysical spirit, he will find a system of philosophy which will supersede all those philosophies which hitherto have tried to hold the field but failed.

Mr. Morrell said : I really have very little to say, and nothing to add to what our Chairman has said, having now heard the paper a second time. I rise to propose a vote of thanks to Mr. Webb for his presence and paper. It is a very able paper, and one far more suitable to be read than for hearing. The subject is a very important one, shewing how the present physiologists are re-discovering truths 90 years old and bringing them out as new. These are valuable, nevertheless ; for while independent they are corroborative, coming from a totally different standpoint. The subject needs a considerable amount of further investigation, and I wish more of our leading doctors would follow up the study.

Mr. Cox, said : I have much pleasure in seconding that our best thanks be given to Mr. Webb for his paper to-night, and I would like to suggest that the Association take up the matter of printing and publishing it, and be at the expense of placing copies of it in the hands of our leading medical men. It is a paper especially prepared for such, and might lead many of them to see that phrenology is not quite so unscientific as they in their ignorance of it have been taught to believe. Mr. Webb might possibly see his way to introduce some matter on the principles of phrenology, and its application in the reading of character, dealing with the modifying influences of organs upon one another, &c. While there are many beside Dr. Wilson—for whom the paper was prepared—who openly oppose phrenology, there are others, who, from the little they know of it, are willing to admit that there is something in it, and who are thus ready to go fully for it whenever it shall be safe and popular to do so.

Mr. Webb : I am much obliged to you for receiving my paper so well. No one knows more than I do the technical nature of it. It was prepared for a gentleman who opposed phrenology from the scientific standpoint and I had to make it scientific, but I hardly dare tell you the amount of time and trouble it has been to me and the conscientious care I have given to it, so that it can be read by anybody.

A vote of thanks to the Chairman closed the meeting.

THE FOWLER INSTITUTE.

THE second monthly meeting of members and friends of the Fowler Institute met on Monday, April 14th, in the Lecture Room, Imperial Buildings. Mr. William Brown, who presided, said : "I am pleased to meet you to-night in my official capacity as Vice-President. I am sure the future of phrenology is something more than we can see to-day, and I want to do my share to reach this happy time. I now have pleasure in calling upon Mr. Melville to read his paper on "Systematic Observation."

In the course of his remarks, the lecturer observed that "systematic" meant pertaining to system, and was derived from the Greek *systmna*, a word meaning "to place together," while "observation" was made up of two Latin words, *ob*, meaning in front, before, &c., and *servaze*, to heed, keep, preserve. Thus to observe is not merely to look, but a "keeping in front of" (our

eyes). The deduction then was that one of the best methods of keeping before us necessary points of study was to record them. Lord Brougham once said that "a man should always carry with him the means of recording his thoughts," but it was quite as necessary we should, particularly as phrenologists, adopt the same method as regarded our observations. Much is lost owing to a neglect of systematic record keeping. Dr. Gall was a true observer, for he wrote down what he saw, and we to-day reaped the benefit. Charles Dickens was a very close observer, but had he not used his pen or pencil we should have lost much. Once when on a visit to Birmingham the great novelist saw some old worn out tea-urns lying in Elkington's factory. Their appearance struck him as being familiar. On inquiry, he learned they were old friends from one of the London and North Western refreshment rooms. Dickens overhauled them with much interest, and seeing the shocking state of the insides, derived a melancholy gratification in thinking how true was his satire on "refreshmenting" in the "Boy at Rugby." A gentleman once informed the lecturer that the secret of his extraordinary memory lay in his notebooks which he was in the habit of reading over and over each week. The very word "record" was derived from the Latin *re*, again, and *cordis*, the heart or mind, or *recordari*, to remember. As phrenologists, we needed to observe and remember systematically, and true observation helped to strengthen the memory. Order, perseverance and care, were necessary. The poet Longfellow set us an example in being orderly. His diary, accounts, scrap-books—everything, were just where he could place his hands upon them in a moment.

Mr. Melville then explained some of the recorded observations of Camper, Stratton, Bridges, and others, on methods of cranial measurement, also exhibiting an instrument for a similar purpose, the joint production of Mr. Hall and himself, and closed his address by an appeal to all members to observe and record systematically in phrenological as well as other directions.

An interesting discussion followed in which several members took part.

OVERWORK.

Is overwork as pernicious as indolence?

This question I would answer decidedly in the affirmative. But before I can expect your assent, I must give you a definition of overwork. By overwork I mean such an effort as will

hinder the restoration of the equilibrium of the system ; or such a state of habitual overwork that, persisted in, will destroy the organism. By indolence, such a state of habitual inactivity that, persisted in, will destroy the organism. For pernicious you may use the synonyms hurtful or injurious. If a muscle has a weight so heavy that it cannot raise it and yet endeavours to do so, the muscle is ruptured—*i.e.*, destroyed—which exemplifies destruction through over-effort. If a muscle be kept in an absolute state of rest, as in the cut cords after the amputation of a limb, the muscle substance will degenerate into fat.

I should like it to be understood that it is overwork I am condemning, and not work. All work—even cotton-spinning—is noble ; work is alone noble ; and it is a blessing and privilege common to all.

“No man is born into the world whose work
Is not born with him ; there is always work,
And tools to work withal, for those who will ;
And blessed are the horny hands of toil.”

Neither do I think we are bound down to a choice of two evils. If we were, I would say with Seneca “I would rather be sick than idle.” The choice is between legitimate work and overwork ; between doing our best and attempting more than we can perform. But I wish to show that our very best is impossible if we overwork—just as impossible as if we were content with doing less than we are able. If effort be a right and good thing in itself—as food, sleep, and economy (by economy I mean wise spending) are good in themselves—it is strange that people should object to my statements who would readily admit that gluttony is as bad as abstinence, oversleeping as undersleeping, and prodigality as parsimony. Is not 20° above as far from zero as 20° below, in any and every case ? Or is three yards to the right of a fixed point nearer than three yards to the left ? It is certainly better to wear out than rust out. To wear out is right and legitimate ; but you can hardly say it is better to snap a blade in two than let it rust.

It would be well to consider just what work is, and what it implies. Work is a definite quantity, and is measured in foot-pounds : a force that will raise one pound one foot per second being called a unit ; and this work may be performed by living tissues or machinery. When machinery is used a motor force is required, which is generally heat, and in the best-made machines the greater portion of the heat is lost in friction, and only about one-tenth of it is utilized for work. The most perfect machine for doing work is living muscle,

because all the heat generated in it is converted into work, and friction is *nil*. Again, the muscle of a cold-blooded animal, if removed from the body, will keep alive for a long time, provided it be kept cool and moist.

The way in which a muscle works is by contracting ; and if it be connected with a weight it will raise that weight. During life, and in the body, muscles contract according to stimuli, brought to them by the nerves, which are under the influence of the will. But they may be stimulated mechanically, as by a pinch or blow ; thermally, chemically, and electrically—which is the most convenient form, because we can measure accurately the force of a stimulus. The changes that occur in a muscle in the active state are not few, and some of them are very complicated. Therefore I will only speak of those that are easily understood, and will apply to work in general.

1. Activity depends upon nutrition. Cut off the blood supply, and it loses its power of contraction.

2. If the muscle of a frog be taken from the body and allowed perfect rest, it will live twenty-four hours.

3. If it be worked for a little while and then allowed to rest, it will recuperate.

4. The contraction of a muscle destroys its contractile substance ;

5. And produces injurious fatigue stuffs.

6. Temperature has also a marked effect. Increase of temperature up to 30° C increases power of work. Up to 35° C it begins to decrease, and at 50° C is destroyed. At 5° it loses its power of contraction, but this can be restored by warmth applied gradually.

7. Functional activity increases the blood supply, and that increases the power of work, so that by working we increase our power of working : within certain limits.

A law that applies to all labour, whether physical or mental, is the law of habitual action, which has been expressed as follows : "When a certain series of nervous acts have once taken place, there is a tendency to their repetition, the tendency growing stronger and stronger as the number of repetitions is increased." The child learning to read has to make a decided effort over each letter ; or in writing forms every stroke consciously and with effort, thinking meanwhile of the shape of each individual letter. The quick reader grasps the sense of a line in a second ; the writer thinks of what he is going to say, and spends no thought or effort on the formation of the letters. In music we have the same thing : each note is thought of at first, and struck with frequently a long interval

between it and the next ; but in a short time the musician can play page after page of intricate passages, and be talking or thinking of something else all the time. Let none, however, think from this law that he or she may work continuously with impunity.

In talking over this subject with different people I have met with many objections ; among them this : that if it were bad for the individual, it was good for others. Do you think it good for the community at large that tramway conductors should work sixteen hours a day, in order that the shareholders may have 9 per cent. on their dividends ? Is it well that a man brought up in a Christian country should exclaim on his dying bed : "I never set up to know much. I've had no time for anything but eating and sleeping" ?

Bayard Taylor beautifully says : "Rest that strengthens unto virtuous deeds is one with prayer ;" and this I hold every whit as true : "*Laborare est orare.*"

Nobody can really rest who does not work, for as it is necessary to be hungry to enjoy food, so we must be fatigued before we can rest. Indolence is a vastly different thing.

"What heart can think, or tongue express,
The harm that groweth of idleness?"

quaintly asks John Heywood. Ovid also says : "Thou seest how sloth wastes the sluggish soul, as water is corrupted unless it move." Indolence has the same effect as overwork—destroying soul, and magnifying to an undue extent the animal nature. The savage races of tropical climes, who have no work, or very little, to perform to ensure their existence, are very low in the scale of humanity. Most of us would prefer to labour hard and incessantly rather than sink into the state of the Lotus Eaters, so beautifully described by Tennyson.

The intense longing for rest, characteristic of so many hard-worked wives and mothers in our day, is symptomatic of an abnormal and highly unsatisfactory state of affairs. One of the conditions of nervous excitability is that there be periods of repose and activity. A high state of activity, though lasting only for a short time, and prolonged activity, soon produce a feeling of fatigue ; and, if too long continued, may abolish excitability altogether. On the other hand, a lengthened period of absolute rest lowers excitability, and, if this state be continued too long, there may be wasting and degeneration of the nerve.

We have seen that a muscle, to work properly, requires a certain stimulus, and needs nourishment ; further, that within certain limits, increased stimuli increases the amount of work

it is capable of performing, and also that the more it works within those limits, the more able it is to perform a greater quantity of work. We find also that if such limits be exceeded, the work must cease altogether, sometimes for a long period ; if the work has been very excessive, or the stimulus very great, the injured organ may never recover its tone, or, worse still, it may be completely destroyed. In like manner, we, as human beings, never work without a stimulus of some kind. The kinds vary greatly : to a great extent work is performed to satisfy purely animal needs. Food, shelter, clothing are essential to existence, and by many thousands, nay, millions, cannot be obtained without the sweat of the brow. It is good for man that it is so. Only, when these material needs so demand the entire devotion of a man's strength that none is left for other things, then it is evil. If a man has only to fight for himself in the struggle of existence, the stimulus is not nearly so strong as if he has loved ones depending on him, in which case the increased stimulus frequently causes an amount of work to be undertaken that is out of all proportion to the strength of the worker. In the hop-picking season of last year (1889), a young man lost his life simply from the press of work that was compressed into a few weeks. He worked until twelve at night, and rose at one or two in the morning, taking only an hour or two at the most for sleep. He knew that he could not long bear the strain : he hoped to live through and then rest ; but he broke down, and passed away, leaving his work unfinished, and a widowed mother to mourn his loss.

There are those who overwork from love of money ; others from ambitious motives, from love of power, of fame and honour. Many injure themselves in the pursuit of pleasure, even harmless pleasure.

Besides the stimuli which excite men to labour, we have to take into account another factor which greatly increases their strength, viz., excitement. The man who is set to ditching very rarely injures his muscles or his nervous system by his day's work ; one on the contrary who is half-crazed by the excitement of a boat race may easily cause himself a life-long injury. A half-hour's walk to a railway station, given plenty of time, could be injurious to no one in a fair state of health ; but a frantic rush, combined with the dread of losing the train, has often proved fatal.

In climbing a mountain—which is hard work that can be stated in definite terms—there are two ways of proceeding : you may go up the steepest and shortest way and arrive at the summit breathless and panting, and with an excessive feeling of fatigue ; or you may take a winding way and reach

the summit cool and without any undue sense of weariness. In the latter case you have completed the same amount of work as in the former, but it has been done with less strain upon the system. This illustrates one of the laws of muscular contraction, viz., that a given amount of work accomplished by few and powerful contractions produces more fatigue than the same amount accomplished by many a weak one.

It would be well to remember that it is possible to over-develop the muscular system. In exercise the muscles are in action, the blood is drawn to them, and when the muscular system is preternaturally developed, a preternatural amount of work is required of the heart and lungs. George Black, in an interesting little book entitled "Brain Work and Overwork," mentions the case of Dr. Winshop, who, when in his best condition, often fainted in a warm room ; and he gives as one of the reasons why professional athletics so often die early of lung and heart disease, that those organs in such people are habitually overworked.

For physical work rest is essential. With overworked needlewomen, tramcar drivers, and railway officials, the period allotted for rest is quite insufficient. If this state of things continue for any length of time among the working classes, racial degeneration will be the result.

(To be continued.)

Hygienic and Home Department.

WEARINESS OF BODY OR BRAIN.

A TRAMP knows what it is to be leg-weary, a farm-labourer to be body-weary, a literary man to be brain-weary, and a sorrowing man to be soul-weary. The sick are often weary, even of life itself. Weariness is generally a physiological "ebb-tide," which time and patience will convert into a "flow." It is never well to whip or spur a worn-out horse, except in the direst straits. If he mends his pace in obedience to the stimulus, every step is a drop drawn from his life-blood. Idleness is not one of the faults of the present age ; weariness is one of its commonest experiences. The cheques that many a man draws on his physiological resources are innumerable : and, as these resources are strictly limited, like any other ordinary banking account, it is very easy to bring about a balance on the wrong side. Adequate rest is one kind of repayment to the bank, sound sleep is another, regular eating and good digestion another.

One day's holiday in the week and one or two months in the year for those who work exceptionally hard usually bring the credit balance to a highly favourable condition ; and thus with care and management physiological solvency is secured and maintained. But a physiological fortune is as good a thing, or even a better thing, than a money fortune. Stored resources, well invested, keep the mind easy and the body youthful. If, however, a man have not these, but only enough of strength to go on steadily from day to day, he should watch carefully against excessive weariness. A feeling of prostration is the dark thunder-cloud that portends a change in the atmosphere. Health, like weather, may "break ;" and when once it is broken, nobody knows when the barometer will mark "set fair" again. Weariness, coming on in the ordinary course of work, without any special and temporary cause, is Nature's demand for an immediate holiday. The horse is tired. He does not want the whip, but a month's run in a quiet and abundant pasture. As nothing in the world can properly satisfy hunger except food, so no drug or stimulant of any kind, except rest, can restore the weary to energy and health. The doctor's tonic is a very good thing in its way, but it will no more act as a substitute for rest than a glow-worm's light will serve the same purpose as the moon.

PROFESSIONAL SCHOOL FOR GIRLS.

THE conviction is gaining ground among the women of England, that there is need of a more complete and all-round education for girls. The banner of higher intellectual culture was well and successfully raised twenty years ago by the ever-to-be-honoured Emily Shirreff and Maria Grey ; and we rejoice in the consequent uprising of Girton and Newnham, of the Halls for women-students at Oxford, and of the High Schools in some of our large towns. There are many girls, however, who are not fitted for purely intellectual pursuits, and who would gladly avail themselves of any opportunity of preparing for other bread-winning careers. It is for such girls as these that the opening of a Professional School is now contemplated. The idea is far from being a new one. During the last half century, the municipal authorities in nearly every country of Europe—notably in France, Sweden and Finland—have established schools for instructing girls in various arts and crafts. Private effort, also, has not been wanting, and we may mention as an example, the Professional School for Girls founded at Nantes, by Madame Guépin, twenty years ago : "the experiment has been crowned with success, and every

year twenty young women have gone out from the school furnished with diplomas for entering useful employments, and equipped to earn a living." But in England, as yet, very little has been done in this direction, and the demand seems now quite strong enough to warrant the success of the proposed school.

It is intended to carry on this school in a country house, where ample facilities may exist for out-door exercises and games, and for the practice of gardening, poultry-rearing and dairy-work. The house, however, will be within short distance of a large town, in order that easy access to museums, lectures, concerts, manufactures, and technical instruction may be ensured.

Pupils will be received from the age of twelve, to go through a course of combined intellectual and industrial education.

The subjects taught will include those now generally studied by girls, as languages, music, arithmetic, drawing, &c.

Designing, Slojd and other wood-carving, metal work, piano-tuning, book-keeping, type-writing, millinery, dress-making, cooking, gardening, and other industries will be taught.

It is earnestly hoped that all those who appreciate the importance of the economic independence of women, in both its personal and social bearings, will give the help of their sympathy and influence to this undertaking.

Applications should be made to the Secretary, *pro tem.*, Mrs. Walters, Abbotsholme, Rocester, Stafford, who will also be glad to hear from any one interested in the subject.

Notes and News of the Month.

MR. AND MISS FOWLER have just concluded a course of fourteen lectures in the Exeter Hall, Strand, on phrenology and physical culture. Mr. Fowler's next course of lectures will be in the Great Central Hall, Bishopsgate, on successive Monday evenings until June 9th, inclusive.

PRIZE OFFER.—The proprietors of the MAGAZINE offer a prize of a Member's Ticket to "The Fowler Institute" for one year for the best Essay on "The Reasons why we should Study Phrenology." Competitors to be under 30 years of age. Length of Essay must not exceed four pages of the MAGAZINE. All Essays to be sent to the office of the PHRENOLOGICAL MAGAZINE by the 15th of May. Further prizes will be offered in the June MAGAZINE.

THE FOWLER INSTITUTE classes in phrenology, physiology and kindred subjects, are held weekly in the rooms of the Institute. Any

one wishing to join this course of instruction should apply at once. Any qualified country members of the Institute being unable to attend the classes, yet being desirous of obtaining the diploma, will be allowed to go through the examination to take place at the end of the year. Particulars will be given where desired. The Fowler Institute is steadily increasing in numbers, both in town and country, and many letters have been received expressing good wishes and interest in the work undertaken by the Institute. The circulating library being now arranged, is in much request by the members.

Correspondence.

AN OPEN LETTER TO COUNCIL BRITISH PHRENOLOGICAL ASSOCIATION.

To the Editor of the PHRENOLOGICAL MAGAZINE.

DEAR SIR,—The Council of the British Phrenological Association have been good enough to add me to their number. From a variety of circumstances, and principally from distance from London, my election, as well as membership of Council, must be mere matters of form, and, indeed, of little practical value to the Association. I, however, take the liberty of the position to pen an open letter to the Council and the members of the Association.

I would urge upon the Council to keep clearly before them the objects for which the Association was formed ; to keep clearly to those objects, and avoid as much as possible side issues and side interests. In this way only can they succeed in making the Association strong, practical, and useful.

The Association should not degenerate into a teaching institute. All the academic lore required by its members should be obtained outside of it. Sufficient for its membership and for its diplomas and grades of certificates that those applying for the same should come up to the requisite standards provided by the Council.

The Society's work should be that of a learned Association, and kept to that. In its monthly papers and discussions, bi-annual conversazioni, and annual autumnal meetings, this fact should be kept steadily in view.

The Association, if it would gather provincial strength ; if it would be a truly representative one ; if it would increase its membership, and if it would make its membership worth having, it must take definite, clear, and decided grounds. It must work out some such methods as these. And, further, while welcoming all useful and cordial aids, its own pathway must be clearly defined, and its work and purpose made significantly distinct.

It must not be crippled by any possible misunderstandings. Having a clear and defined course, there would be obtained for it the cordial support of all interested in the science of phrenology at home and abroad.

Too much weight must not be placed on professional phrenologists. While I should gladly see every phrenologist worthy of the name on its roll, nothing would be more gratifying to me than to see a large access of non-professional membership out of the professional ranks in literature, science, medicine, philosophy, and theology. While the Association keeps specially to its own range of subjects, the discussions arising therefrom would be enhanced in value by the culture and well-read characteristics of its increased membership, and thus make its monthly public meetings of special interest. I trust each member of the Council and every member of the Association will do their utmost to increase the membership of the Society.

Again, I would have non-certificated members urged and encouraged to prepare and apply for the certificates of the British Phrenological Association. I would also have it clearly understood that as far as the Association is concerned, that while the letters M.B.P.A., should indicate (in a measure) personal worth and an interest in the subject of phrenology, they are positively valueless as indicating proficiency in the science. Unless something is done to clearly distinguish certificated from the non-certificated, and especially in the provinces, the Association will suffer. I hope the Council will give due attention to this.

Perhaps while I am writing, I may say I view my own election to Council as purely formal and satisfactory. I hold now, as I have always held, that every official should be elected by a simple majority of member's votes, all members to have the right of voting (personally or by proxy) whether they exercise it or not. The Association will not be strong or practical in its working until this is done. If it is to be a British and not a local society this must in some way be managed.

The Council should be elected from members who shall at least have been two years on the roll, and whose subscriptions have been regularly paid. The vice-presidents should be elected (with due care) out of the Council, and no one pitch-forked into that position without having served the Association in membership and otherwise shown an active interest in promoting its objects; and, lastly, I think the president should be selected from the vice-presidents. In this way the best and most faithful members — all considered — will be selected for the Association's honours.

I quite accord with your suggestion, sir, that "the Autumnal Meeting be movable," and I would suggest that it is also the Annual Meeting which should represent the fruit of the year's labours. At the meeting the secretary should present the annual report, and the members elect the office bearers for the ensuing year.

I am, Sir, yours truly,

JAMES COATES.

Greta Bank, Crosshill, Glasgow, N.B., 1st April, 1890.

THE SCIENCE OF CHARACTER.

SIR,—Your article on the "Science of Character" which appeared in last Saturday's issue, has created considerable surprise in the minds

of those who have given time in investigating the claims of phrenology. Several points in your article clearly reveal the fact of your absolute ignorance of the subject upon which you treat, and were it not for "humbug being still a commodity" no public journal would have ventured upon such an exhibition of ignorance and presumption.

Without any attempt at argument you pronounce all supporters of the phrenological philosophy to be mere quacks, and that they "all depend on the long life and invulnerable constitution of humbug." Do you know, Sir, that among these "quacks" may be found honest, respectable medical men, clergymen, lawyers, journalists, and others? Do you know that the principles of phrenology were discovered by men distinguished in physiological and anatomical science? Do you know that no single fact upon which the science of phrenology rests has ever been controverted since they were presented to the world by the eminent names associated with them? And do you also know that the main principles that phrenologists have contended for are now admitted by the most eminent authorities of the day? If not, inquiries should have been made before such an article was penned.

You appear to base your decisions on a recent article in the *National Review*, wherein the writer states that the skull bears no relation to the shape of the brain, and that a part of the brain which phrenologists claim to be associated with a certain faculty, merely presides over bodily motion; and your remarks would lead your readers to imagine that such statements are now made for the first time; instead of which, these very points are as old as the controversy itself; and the replies the phrenologists give, are steadily and persistently overlooked by the would-be critics of phrenology, when they repeat their charges of "quackery" and "imposture."

Probably the first-named objection is born of the notion that phrenology depends upon "bumps" in its estimation of character. Nothing could be more misleading. Phrenology is not "bumpology"—if it were, there could be no longer doubt as to its "manifest imposture," but as it is, critics apply their criticisms to a fable they themselves have coined, for only in their writings do we find phrenology treated of as a science of "bumps." The question, therefore, is not, "does the brain bear relation to every little irregularity on the surface of the skull," but rather, does the brain bear relation (in healthy subjects) to the general conformation of the skull—its height, width, length, breadth, &c.—and we have yet to hear of the physiologist who will say that it does not. Sir Charles Bell observes that "the bones of the head are moulded to the brain, and the peculiar shapes of the bones of the head are determined by the original peculiarity in the shape of the brain;" and a recent textbook on phrenological science in referring to the ideas of "bumps" says, "until this error can be rubbed out of the public thought, and the true principle of phrenological examination established, no progress can be made in the education of the people on this subject."

Then, again, we are informed that "physiology shows that the cerebellum is a neutral party in the contest between good and evil,

and merely assists man in the labour of walking," while phrenology has located "in the cerebellum all the bad organs." In the first place phrenology has nothing whatever to say about "bad organs"; it knows of no such thing, but considers everything to be good that the Creator has made. A faculty becomes bad only in its perverted action; hence there is no such thing as locating "in the cerebellum all the bad organs;" and all that phrenologists claim with regard to this lower division of the brain is that the amative instinct is in some way connected with it, which claim is supported by multitudes of facts. No doubt the cerebellum possesses other functions—no phrenological authority has said it does not—yet Mr. Courtney and other writers of the same presumptive school imagine that because certain facts go to show this portion of the cerebral mass to possess one function, therefore all facts must be overlooked that refer to other functions.

You say that "phrenology ought to be as dead as witchcraft," yet the most recent discoveries (Dr. Ferrier's) of the "motor centres" of the brain go to support the phrenological system, and the German physiologists, though they refused the doctrines of Dr. Gall, have declared that his writings must be "re-considered."

The science of phrenology occupies a stronger position to-day than it has ever done; students of the subject have banded together in the British Phrenological Association to continue their investigations. Phrenology does not claim to be perfect—it is a tentative science, based upon thousands of well ascertained facts, but future observations may modify the ideas already held. Phrenologists may make mistakes—so do medical practitioners—but they are right in their facts, and until these facts are overthrown, or the deductions made for them proved to be incorrect, such remarks as appeared in your journal on Saturday last can only be treated by reasoning minds as evidence of the truth of the adage that "fools rush on where angels fear to tread."

I remain,

A MEMBER OF THE BRITISH PHRENOLOGICAL ASSOCIATION
(London).

From *The Bristol Mercury*.

What Phrenologists are Doing.

[In sending notices for this column, correspondents will oblige by enclosing their communications in an envelope and addressing them to the office of publication of the PHRENOLOGICAL MAGAZINE. Newspaper cuttings pasted on post cards are an infringement of postal rules and subject to a fine.]

ON April 14th Mr. L. N. Fowler gave the first of a series of Monday evening lectures on phrenology at the Great Central Hall, Bishopsgate. Mr. Fowler, the Chairman said, needed no introduction, as the friends there had not forgotten his lectures given a few years back for forty-two evenings consecutively. The lecturer was in

his element, and never have we heard him discourse with more convincing power. He explained the principles upon which phrenology is based, enlarged upon the influence of the cortex of the brain on the skull, and gave some good advice to parents upon the management of children. He further showed that depravity was not a necessity. That man was not bad because he was made bad in the beginning, for God never made a fool. He admitted that there were foolish people in the world, but their depravity was traceable in a large measure to imperfect parentage, and urged that the parenting of children should be a matter of more thought, care, and design. Mr. Fowler, at the close, gave four delineations of character, which the friends present stated were wonderfully accurate.

TORQUAY has been favoured with a visit from Professor A. J. Coles, the well-known phrenologist of Exeter, who has been "telling the bumps" at the Lecture Hall of the Young Men's Christian Association. On Tuesday the lecture was on the "Seven Avenues of Character;" on Wednesday on "Man's Responsibility, viewed in the light of Phrenology"; and on Thursday the subject was a most entertaining one to the youth of the rising generation, namely, "The only Safe Way to True Courtships and Happy Marriages." Though it does not need the advice of a phrenologist on the latter subject, Professor Coles dealt with his subject in a most entertaining and interesting manner, and doubtless there are those who will profit by his well-meant advice.—*Torquay Times.*

LOVE, COURTSHIP, AND MARRIAGE.—A lecture on the above subject was delivered by Professor Coates, in Cathcart Free Church, Mount Florida, on Thursday evening, Rev. Wm. Keith presiding. The attendance, which was large, included Messrs. Archibald, M'Gibbon, and Naismith, superintendent of the Band of Hope. In the course of some highly practical remarks on marriage, the lecturer said that monogamy was its highest and truest form. "A bishop should be the husband of one wife," and no man of sense would seek to be the husband of more than one. Wedlock should be based on love, although it might be easier to say what love was not, than what it was. His friend, Mr. Fowler, had said, "it was something that could not be bought or sold, weighed or measured, seen or handled, lent or borrowed. Use only brightened and strengthened it; age gave it intensity and power of action. It was always warm, alive to sympathy, pliable, gentle, human, disinterested, and unchangeable. Without it law was of no avail; with it home was a paradise." Love, then, was the natural outcome of true nature; rightly understood, it was based on suitability of temperament. It was a poor married life that was not better than a single one; what would keep one would keep two; but people should marry for love. The heyday and bloom of life were meant to be in honeymoon. The Professor received a cordial vote of thanks for his lecture.—*Glasgow Paper.*

Book Notices.

A STRIKING Book.—We have received for review a somewhat extraordinary book with the title, *The Christ in London; and other Poems*; by Tristram St. Martin (Authors' Co-operative Publishing Company). Extraordinary because, setting all laws of congruity at defiance, the author has, with what may be called a wildly revolutionary pen, given us a picture which challenges the very bases of society. Its setting is astounding in originality. Portraying a visit of the Christ to London on one night of this latter half of the nineteenth century, it describes the new forces that are awakened in consequence, and the searching of the great mass *sans asile* for their Master who is to bring back with Him that Astræa who had disappeared hence even before His first coming. The search is continued all through the night with varying success; and the way in which each local landmark as we know it—Blackfriars, the Strand, “The Square,” then back to Newgate, St. Paul’s, etc.,—is noted, is not the least striking feature. But we have unfortunately room for only a few quotations. The poem, realistic as it is, is necessarily extremely vague in some parts; although as to his opinions the author never lets us mistake. The Christ is scarcely more than an ethical idea; though His portrait is thus given by Mary, the Magdalene of the story, who first accosts the author,—

“ Face pale and sad, with heavenly mildness lit ;
Long hair that reached his shoulders, golden bright,
That seemed to shed an aureole of light ;
His garments long and flowing, without seam,
Regal, majestic with purpureal gleam,
It could not be another but the Christ ! ”

The writer himself, who is throughout scarcely more than a shadow, is however the doubting element; continually vexing himself with questions as to the sanity of himself and his companions, and doubting whether “Bedlam had let out its piteous folk.” He accompanies the “fallen sister” in the search, in which they are soon joined by other characters of striking interest.

“ Beyond the station, looking towards the north,
We now behold a shining host advance,
Women and men there were, some young, some old,
Some clad in tatters, others in goodly garb.
Upon long staves resembling bishops’ crooks,
Some bore bright lanterns ; others held torches high ;
Those shed white gleams upon the moving stream,
These flared upon the houses lurid red.”

There is no lack of episode on the way. A crucial point of the book is touched by one

“—Rough hewn son of night, he seemed, unkempt,
With beard projecting, darkling eyes, and brows
That held a threat upon each bristling hair,”

when he says,—

“ I can’t believe
That ought will change these wolves, these damned wolves,
Who suck our blood and sweat us to the death !
Pardon, good woman, for my roughish words.
We get such currish usage, we who toil,
What wonder if we sometimes snap and snarl ? ”

Further on

“—A motley gathering screamed and danced
To strains blown from a magic flute or pipe
Played by an antic who, in quaint attire,
Leaned on the steps of that high mansion, where
Wealth sits with Christ, and Satire winks between.
So strange his look I could not help but gaze.
Now seemed his face seraphic ; now it changed
And fell through low and lower to the beast.
One foot was hoofed—so seemed it—and one hand
Clawed like a quadrupana’s. When this touched
The pipe it seemed a scream of devilish glee
Flowing therefrom.”

This and its development is the most powerful feature of the poem.

With a view perhaps to unity the author seems largely to have thrown literary polish to the wind, and, though the language is always powerful and caustic, it is often plain to a degree, and we get such anomalies as deep social questions treated in lyric form. Of the other poems, the first stanza of the first, “Chant Democratic,” gives the keynote—

“ Ho ! ye slumbering millions waken ! Shake the languor from your brows,
Lo, your children are undoing, while ye idly dose and drowse,
Waken ! waken ! day is dawning. Hark, the clarion of the morn,
Shrilly sounds amid the silence, by the fitful breezes borne ! ”

Whether this will be a “book of the day” we will not venture to conjecture, but we have no doubt it will be received with some sensation in critical and society circles. It may be added that it can be procured from the publisher of the MAGAZINE for the “popular” sum of One Shilling.

Home-tried Recipes.

It is hoped that the following recipes may interest many families who are in daily quest of common-sense, economical, wholesome, and well-tried puddings, pies, and supper dishes, and that they may become substitutes for those most indigestible meat suppers which are so universal.—J. A. F.

PUDDINGS.

Apple Compote Pudding. Peel and core twelve good-sized apples, boil to a pulp with half a pound of sugar until stiff, stir while boiling. When done, place the compote in the middle of a dish, have ready some triangular pieces of sponge cake, arrange some on the top in a pretty design, the remainder at the bottom. Have ready warmed

half a pot of greengage or apricot jam mixed with a little sugar syrup, and pour it over the compote, taking care to soak each piece of cake.

Pinafore Pudding. Take two cups of flour, one teaspoonful of yeast or baking powder, half a cup of butter, one egg, half a cup of raisins, quarter of a cup of currants, a pinch of salt, half a cup of milk, spice with nutmeg, mix the ingredients well together, and serve with sweet sauce.

PIES.

Cocoanut Pie. Choose a large nut and grate it finely, mix it with an equal weight of finely sifted sugar, half its weight or rather less of butter, the yolks of three eggs, and the milk of the nut. Beat the butter to a cream and mix the other ingredients with it; whisk the whites of the eggs to a stiff froth and spread over the top; line a tart dish with good paste, put in the mixture, and bake slowly for an hour. Cover the top with a sheet of buttered paper to prevent it from getting brown.

Lemon Tarts. Grate the rind of two lemons, juice of one lemon, piece of butter size of an egg, one egg, sugar to taste, simmer all together till thick; bake some puff paste and fill while hot. This makes thirty tarts.

SUPPER DISHES.

Orange Jelly. Rub the rind of two oranges with sugar, enough to sweeten the juice of eight oranges and one lemon. Soak one and a quarter ounces of gelatine in one gill of cold water, add three gills of boiling water, add the juice of the oranges, lemon and sugar and stir all well until dissolved. When nearly cold pour in a mould to set.

Tapioca Jelly. Soak one cup of tapioca in three cups of cold water over night. Set it in boiling water half-an-hour, or until it is like jelly, grate the rind and squeeze the juice of two lemons, add two tablespoonfuls of moist sugar, stir frequently. Serve with sugar and milk.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

J. H. Mc. (Londonderry).—The more recent photograph of this gentleman indicates a worker, both with body and mind as the occasion requires. He is much given to thinking, is interested in all kinds of subjects, has both a perceptive and reflective mind. He is quite successful in gaining knowledge by observation; he is condensed in his style of talking, also rather vigorous and presents a subject in its

boldest relief. With an education his capacities would appear to a very good advantage. He is naturally a scientific man and is a great lover of facts and of the simple truths of nature. He has a correct mechanical eye, has ability as a marksman, can understand the laws of gravity and apply them. He is particularly inclined to criticise, discriminate and see differences between persons, things and circumstances. He is sharp in reasoning and pointed in his style of conversation, but rather blunt in his remarks, for he talks without qualification. His moral brain indicates sympathy, benevolence and tenderness of mind, with a due degree of respect for what his intellect may sanction as worthy. He relies on himself and takes the responsibility of his own life upon himself. He must have commenced young to do his own thinking and to carry out his own views. He is not proud and haughty, but feels he is a man and that his judgment is sufficient for him. His love nature is guided by his intellect. He is not specially devoted to society ; he prefers to go where he can hear a good speech, than to spend the evening in a social way. He is not often severe, but when he has an end to accomplish and knows he is right, he lays down the law very strictly. He has other objects in view more than to make money. He wants property as a means to gratify other faculties, but not as an end to enjoyment. He does not appear to be a cunning man, but expresses his mind openly and frankly. He is perhaps more prudent in what he does than says. He is capable of exerting quite a distinct influence, only he is peculiar and cannot readily fall in with the common ways of society, hence he may have his special friends. He would do very well as a leader, where some one was wanted to go forward, break the way and tell the truth. He has scope of mind, is not afraid of reforms, improvements or of new ideas. He is living with reference to the time to come rather than in the past. Where people take to him they do it with all their minds, and if a leader, those who followed him would do it most conscientiously.

ALFRED W. (Natal).—This lad will grow up to be a discriminating, intuitive and intellectual man. His brain is large, from the root of the nose upward over his head. All the central and more important qualities of his mind are large, and he will have considerable reputation as a critic, and as a common-sense man. The base of his brain is not large ; he will not exhibit a violent disposition ; will not be one of the rough kind. He is comparatively gentle in disposition, but has a great amount of will and general stability of mind. His tone of mind is rather elevated. He is naturally adapted to some sphere of life where positive knowledge is required, either in science or literature. If he studies medicine, he would excel as a practitioner, but not so well as a surgeon. He has definite powers of observation : is much interested in seeing things with his own eye. He has long sight : can see things at a great distance ; he has good ideas of forms, likenesses ; he readily knows people when he sees them again ; has talent for drawing and for architecture. As he grows older he will show a pious tendency and

be interested in reforms and improvements. He will want to do good and may show a missionary disposition. He is not particularly versatile in manner, but is very kindly disposed and full of sympathy for other people. He is respectful, and more a law to himself than boys generally are at his age. He is always in earnest, means what he says, and cannot take jokes very well. He acts older than he is. He may at times consult expediency, be rather fast, draw conclusions too hastily and promise too much; but this state of mind will be rectified more and more as he gets experience. He has talent for a doctor, minister, for architecture, drawing, designing, teaching, or for holding some office where he will be master of the situation.

ARTHUR W. (Natal).—This boy has a large brain, fully developed in most parts, he has many plans and ideas, will try to do many things, and it is going to be easy for him to settle down to one thing. There is fair harmony between the face and head, but the head as a whole predominates in power, and he will follow his mind rather than his bodily tendencies. He is very much given to the study of things: will go into the philosophy of them and want to know why things are. He readily comprehends what others are talking about, and appears to have more of the thinking and reasoning mind than mere perception. He should be encouraged to observe more definitely and be more practical: he will not so readily draw with his pencil, remember faces or see objects at a distance as his brother. His imagination is quite strong, his plans are all large and rather extensive, and he talks as if he were going to do great things. He is adapted to wholesale business if he goes into business at all. He will be able to engage in any kind of business that requires strength of mind, originality of thought, and comprehension of the whole subject; it will not be easy for him to get into his best position, he will have to try and try again and eventually find his place. He has a fair base to the brain, but his power is in the superior rather than in the basilar brain. He is decidedly cautious, has a watchful cast of mind, will be anxious to avoid all kinds of mistakes. He will not show much littleness and meanness of mind unless he is with others who are of that spirit. If doing business with other boys who are sharp, they will make him so when he otherwise would not have been so. Taking everything into account, it would pay in every sense of the term to give him quite a full, liberal education; not because he is going to be so forward as a scholar, but the more his intellect is trained the better able will he be to use it. He will not show special scientific ability: will do better in studying fundamental principles than in the rudiments. He can copy and imitate well. He is quite given to theories and speculations with reference to the future. He is sympathetic in his disposition, and respectful in his feelings. He is slow in making up his mind, and equally slow in changing his mind from one thing to another. He is naturally a conscientious boy, and will generally regulate his own conduct. Both of the boys should be encouraged in talking and reading out loud, to develop their lung power.

THE
Phrenological Magazine.

JUNE, 1890.

SURGEON T. PARKE.

SUPPOSING the likeness of Surgeon T. Parke is true to nature, we draw the following inferences:—First, that there was balance of power between one part of his nature and another: the result would be health,



presence of mind, and consciousness of all his surroundings. He could not be easily taken by surprise, would not become so much excited as to be unsound in his judgment. Few individuals are so well rounded out, both in body and mind,

as he is. His face is symmetrical, and in harmony with the proportions of his head. His chin indicates great vitality and great hold on life ; he would live where others could not, and would be one of the last to die in an epidemic, or of wounds ; is seldom ill, and when ill would recover more speedily without taking medicine than with. His head is comparatively round and fully developed in all parts. There is sufficient base to his brain to indicate strength of feeling, energy, and force ; but there is also great height to his head, which favours moral courage, strength of will, pride of character, and great tenacity of purpose. His head also is rather broad ; he is comparatively conservative, and keeps his mind to himself. He neither talks loudly nor long, yet says much in a few words. He is naturally economical of time, money, strength, and knowledge. He is decidedly cautious, on the look-out, and cannot be easily taken by surprise. He has much fore-thought, looks ahead, and provides for the future without trusting to luck or chance. He generally foresees an evil, and knows how to evade and avoid consequences. Whether religious or not by profession, he has enough stability to his character to help him to govern himself and resist temptation. He has more of the elements of pride, manliness, and self-government, than he has of vanity, love of display, or desire for popularity. His benevolence and veneration appear to be strong. He is respectful to superiors, and not tyrannical to subordinates ; but he does not let himself down in a familiar way, or sacrifice his dignity simply to please. He has a happy faculty of minding his own business, is comparatively hopeful, and disposed to go ahead and look forward rather than to be discouraged. He has many interests and resources, and in times of emergency it is revealed to him what to do, for he has a strong spiritual consciousness, which aid his powers of contrivance and invention. He has strong imagination, takes broad and liberal views of subjects, and does not worship a narrow, contracted religion, or follow a sectarian creed. He is ingenious, versatile in contrivances, and handy in doing many things. His central brain, from the root of the nose upward, is large, which gives him definiteness of observation, and a distinct consciousness of what is going on around him, of what he has done, or has to do. He is quick to take an idea, and to see the bearing of a subject ; knows how to make the most of his circumstances and surroundings ; in times of trial and danger he knows what to do on the spur of the moment, as well as if he had any amount of time to think. He is intuitive and concentrative in his thoughts. His first impressions are usually correct.

He is pliable in his ways and manners, and youthful in his disposition, and if necessary can be very bland and entertaining ; but the summing up of his character is that of great courage, presence of mind, independence, singleness of purpose, tenacity of will, versatility of talent, energy (joined to caution and forethought), and great feelings of humanity and willingness to make great sacrifices for the safety and happiness of others.

L. N. FOWLER.

PHRENOLOGICAL ASPECT OF MODERN PHYSIOLOGICAL RESEARCH.

DR. GALL left Vienna, about 90 years ago, sooner than give up teaching phrenology. He sacrificed himself for what he believed to be the truth.

He taught that (1) the brain is the organ of the mind ; (2) quality, health, and education, being equal size, is a measure of power ; (3) particular parts of the brain have separate and special functions.

Respecting the first of Gall's propositions, Dr. Ferrier admits : "That the brain is the organ of the mind is a universally admitted axiom."—"Functions of the Brain," page 424.

As to the second proposition, Dr. Quain's "Anatomy," page 579 of Vol. II., says : "All other circumstances being alike, the size of brain appears to bear a general relation to the mental power of the individual ;" and Gray's "Anatomy" states : "The size of brain appears to bear a general relation to the intellectual powers of the individual."

The third proposition, the localisation of faculties, has created the greatest opposition, but is now being admitted also, as I shall endeavour to show you.

Dr. Ferrier states, on page 221 of "Functions of the Brain," that "up to a recent date, if we except the cumbrous divisions and fanciful localisation of faculties of the phrenological system, the results of experimental physiology and human pathology had been considered as opposed to the localisation of special functions in regions of the cerebral hemispheres."

I propose to show you that the truthfulness of phrenology can be proved from the writings of its opponents. Many opponents of phrenology, having no ability to disprove its teachings, try to ridicule it. A common method is to say that it is as easy to tell the number of a £5 note inside a safe by

feeling at the knobs outside, or the contents of a trunk by passing the hands over it, as to tell anything about the brain by feeling about the skull—that there is no similarity of contour between the brain and skull.

Dr. Ferrier shall reply to this :—

“The determination of the exact relations of the primary fissures and convolutions of the brain to the surface of the cranium is of importance to the physician and surgeon as a guide to the localisation and estimation of the effects of diseases and injuries of the brain and its coverings, and may prove of great service in anthropological and craniological investigations.” He gives four illustrations (pages 483, 486, 490, 491) to assist the student in his study of the “relations of the convolutions to the skull.”



FIG. I.

The brain is composed of the cerebrum and the cerebellum.

In Figure 1, you will see that the cerebellum is laminated, as shown by the darkened lines; and Figures 2 and 3 represent the upper and lower surfaces respectively of the cerebrum or double brain—made up of two hemispheres. Each hemisphere is composed of lobes indistinctly definable, and the island of Reil, which may be seen by spreading wide the sylvian fissure separating the frontal from the temporal lobe. The temporal lobe (also called by the older physiologists the middle lobe), perhaps, more correctly the temporo-sphenoidal lobe, lies below the sylvian fissure, and anterior to the occipital lobe, and is the most deeply lying part of the hemispheres. The line of separation between the occipital and temporal lobes is but ill-defined, as is also that between

the occipital and parietal lobe. The line of separation between the parietal and occipital lobes includes the parieto-occipital fissure, p.o.; that between the frontal and parietal lobes runs along the fissure centralis (central fissure) generally called the fissure of Rolando.

Each lobe consists of convolutions. The frontal lobe has three, not always easy definable. They are called superior, middle and inferior frontal convolutions, and are separated by the superior and inferior frontal sulci. In the accompanying diagrams, Nos. 1, 2, 3, 4, the lobes are indicated by large

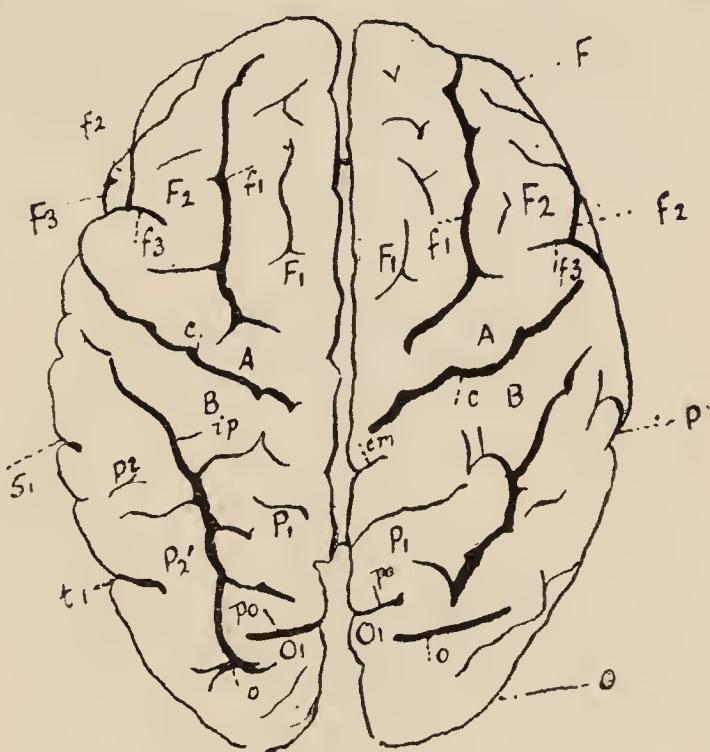


FIG. 2.

capitals, the convolutions by small capitals, and the fissures by small letters, thus :—

F.—Frontal lobe.

F.—Superior or first frontal convolution.

f.—Superior frontal fissure.

The fissure of Sylvius, nevertheless, is marked S" and S',—S" being the anterior, and S' the horizontal branch or "ramus" of this fissure. A. and B., respectively anterior and posterior to the fissure of Rolando, are the ascending frontal and ascending parietal convolutions, often called the anterior central, and posterior central convolutions. The diagrams 1, 2, 3, 4, are after Ecker, and are similar to those in Ferrier's "Functions of the Brain."

From what I have said no one looking at the diagrams can fail to make out the meaning of the letters used.

In figures 1 and 2, cm. is the termination of the furrow marked cm. in figure 4 (which is a "view of the right

hemisphere on the median aspect") that can be seen on each side of the inner surfaces of the hemispheres when separated from each other, and called the sulcus calloso-marginalis, separating Gf., the gyrus fornicatus, and F 1, the superior frontal convolution.

C.C. (the corpus callosum) is the commissure connecting the two hemispheres together. The "great longitudinal fissure" that separates the hemispheres above the corpus callosum is occupied by a fold of the *dura mater* called the *falx cerebri*. This process carries certain small veins in "sinuses" proceeding from both skull and brain. The first, second, third and fourth temporo-sphenoidal convolutions are marked T₁, T₂, T₃ and T₄, and the occipital convolutions are similarly marked, O₁, O₂ and O₃. The convolution

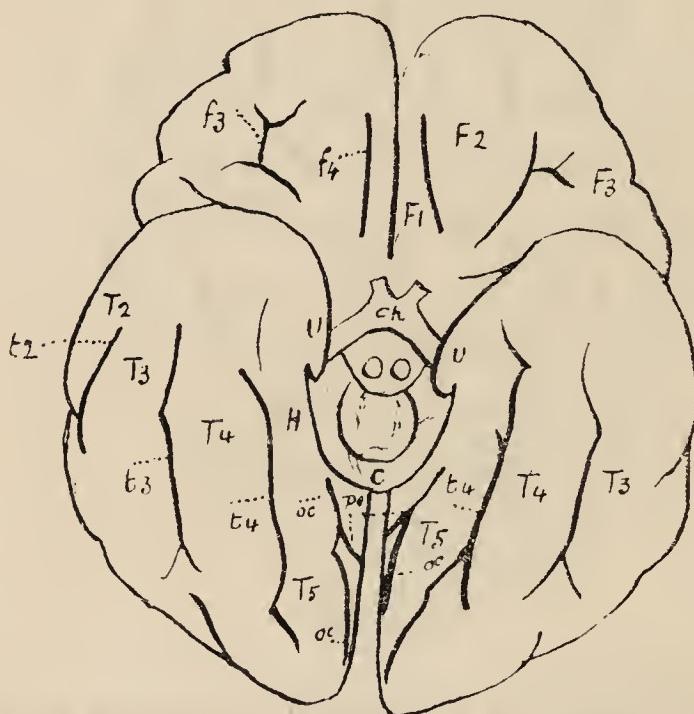


FIG. 3.

curving round the end of the sylvian fissure is called the gyrus supramarginalis (P₂), and that round the end of T₁ (first temporal fissure) is called the angular gyrus.

No two brains however are exactly alike, either in size, shape or convolution; and each convolution is, more or less, convoluted in itself—the greater this inter-convolution the greater the mental capacity of the brain.

Respecting the anterior part of the brain, phrenology teaches that it is concerned with ideation—that it is the seat of the intellectual faculties. This fact is accepted by Dr. Ferrier. He said, at Manchester, on the 1st December, 1875 (reported in the "Manchester Science Lectures"), that "We have however other evidences which go to show that the frontal regions of the brain (which are much larger in man than other

animals) are associated with higher intellectual functions. What is the physiological explanation of this function we are at present unable to say. So far the facts of experiment and of disease favour the views of phrenologists, namely, that with the development of the anterior part of the brain there is a corresponding development of the higher intellectual powers; but investigation is still needed in order to thoroughly explain this fact in physiological terms."

More will be said on this subject—the frontal region—by-and-bye.

The occipital region and the cerebellum occupy themselves with the propensities. The parietal lobe is largely made up of the moral and religious organs, while important preservative or selfish propensities lie in the temporal area. The largest *organ*, the cerebellum, is the organ of sexual love. Dr. Ferrier denies this fact. By-and-bye I will quote from him in support of it.

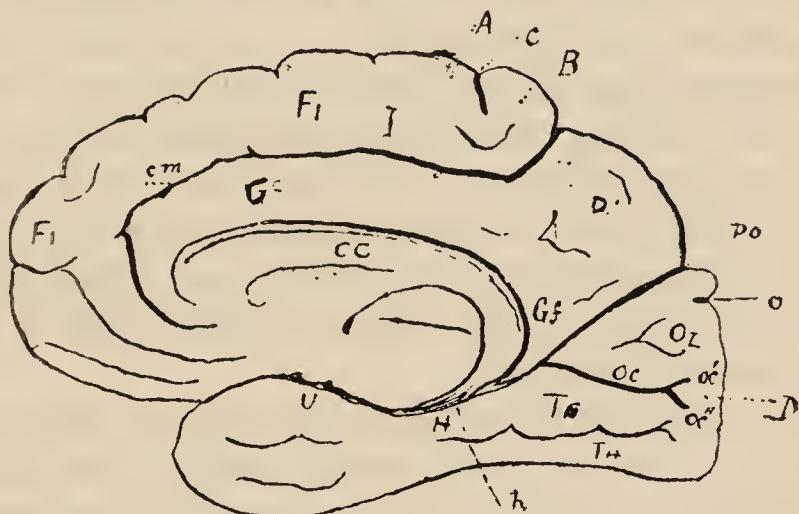


FIG. 4.

On pages 178-9 of "Functions of the Brain" he contradicts himself, and argues against a doctrine that phrenology does not teach. He thinks that phrenology teaches that the cerebellum is necessary to reproduction. Nothing of the kind. This organ limits itself to desire—sex affection. The cases of the two dogs are not *apropos* therefore. In one place he says that one of the dogs had its cerebellum "removed in two operations" and afterwards "whelped." This he says was after "complete extirpation of the cerebellum." She was killed by chloroform, and the brain was examined by a committee to whom she was entrusted. Only a small fragment of the right lobe of the cerebellum existed.

So that removal and complete extirpation of the cerebellum left a "small fragment" of it behind. That is what I consider contradictory.

In the other case the so-called removal consisted of a "nearly complete extirpation." Hence the data upon which Dr. Ferrier founded his opinion are not satisfactory. And why did not this bitch whelp? Because "coitus could not be effected, owing to the motor instability." So that had he been correct in his phrenology even then this case would tell against his conclusion.

We find on page 432 of "Functions of the Brain" that Dr. Ferrier makes a statement of the highest importance in favour of phrenological truth. He there says:—"As morbid irritation of the sexual organs may excite a morbid sexual appetite, so, conversely, the sexual appetite may be morbidly excited by pathological irritation of the cerebral paths and the cerebral centres of the sensations connected with the exercise of generative functions. To the former belong the satyriasis or nymphomania occasionally observed in connection with the disease of the middle lobe of the cerebellum; to the latter the various morbid exhibitions of the sexual appetite in insanity where the centres are functionally or organically diseased."

This statement that satyr-like lasciviousness—"satyriasis"—a disease of males, and uncontrollable sexual desire in females—"nymphomania"—are the result of a diseased condition of the middle lobe of the cerebellum is so phrenologically correct and transparent to any one whose mind is not made up against phrenology, that one wonders how it is that Dr. Ferrier has missed seeing it.

One can be excused being astonished that with these facts before him Dr. Ferrier could miss seeing that his teachings are all favourable to phrenology, or could ever have written as he did on page 174 of "F.B." that "Gall's hypothesis as to the function of the cerebellum, though the most widely known, is the least well-founded." Many physiologists profess to accept the view of Flourens that the cerebellum is the organ of muscular movement, but on page 181 of "F.B." Dr. Ferrier proves that this cannot be harmonised with "the actual facts of clinical observation," and then he states his own hypothesis that the cerebellum is an organ of "equilibration."

He nevertheless admits that his method of exciting the cerebellum is subject to variations which render the investigations troublesome, and, unless sufficient care is taken, may easily lead to apparently contradictory results.—Page 180-1 of "F.B."

Dr. Ferrier does not leave it to his readers only to discount his discoveries, for at the commencement of "F.B." page xxi., he speaks of the "positive contradictions among conclusions which the same experiments and facts have apparently led

to in different hands ; " and (page xxii.) he further admits that, in establishing lesions in one part of the brain, there results " such general perturbation of the functions of the organ as a whole as to render it at least difficult to trace any uncomplicated connection between the symptoms produced and the lesions as such ; " and on page xxiii. he adds : " We are only on the threshold of the enquiry, and it may be questioned whether the time has arrived for an attempt to explain the mechanism of the brain and its functions."

As Dr. Ferrier's experiments were all on monkeys and the lower animals, his warning against building on the " positive contradictions " that the same experiments and facts have led to in the hands of different experimenters is very salutary. By-and-bye I shall describe what he says about lesions in men, which you will find to be absolutely in favour of phrenology in every case.

Dr. Brown (page 33 of " Phrenology ") recounts a very important circumstance illustrative of the phrenological doctrine of the cerebellum.

He states that at a meeting in the great room of the Society of Arts, Adelphi, in 1841, the cerebellum of a " gelding," which was entirely converted to bone, was exhibited by Dr. Elliotson. This gelding, he says, " had never shown any want of power to regulate his movements, but he walked, trotted, and galloped like other horses, and manifested no unsteadiness in his gait."

After proving the genuineness of the case, Dr. Brown asks : " Can it be denied that this is a case calculated to set aside forever the notion that the function of the cerebellum consists in the power of regulating and directing the actions of voluntary muscles and of enabling an animal to preserve its equilibrium ? "

And according to his own account of the two dogs (page 179, " F.B. ") Dr. Ferrier's evidence is quite as weighty against his own view as it is against that of Flourens which he combats. The experiments he performed with them illustrate his saving remark that sufficient care must be taken in performing them, or they will lead to " apparently contradictory results," for when " thrown into the water " they were " able to swim " out again, one of them in a manner he describes as " with well co-ordinated movements of the limbs, and head erect like a normal dog."

If I were inclined to joke on the subject, I should say that this might be (according to Dr. Ferrier) because " the animal may supplement the loss of this mechanism by conscious effort, and after losing its equilibrating organ, in process of

time it acquires the power of voluntary adaptation, and thus is enabled to maintain its equilibrium, though perhaps with a less degree of security than before" ("F.B.", page 203). How scientific and unfanciful!

If you will look at Figs. 5, 6, 7, and 8, you will see how Dr. Ferrier has mapped out a number of brain centres, which we will briefly consider.

He says that in 1870 Hitzig and Fritsch inaugurated a new era in physiological research by the application of the galvanic current to the surface of the cerebral hemispheres. ("F. B.", p. 223.)

It may be worthy of notice that in 1874 Dr. Davey, of Bristol, told the "Bath and Bristol Medical Association," and

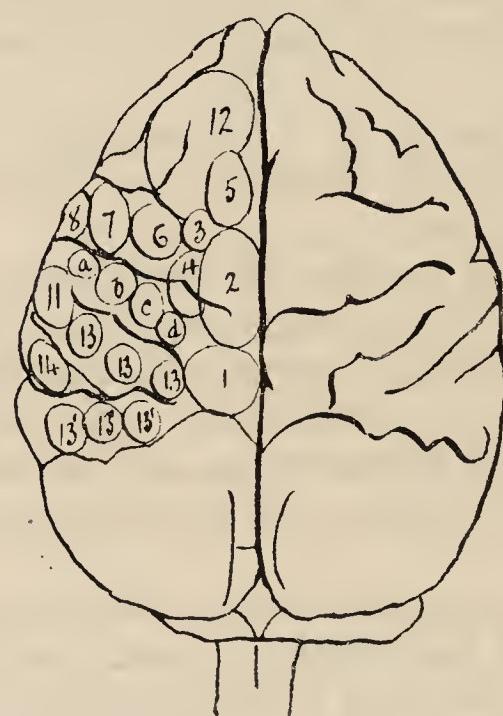


FIG. 5.

reported on page 252 of "Psychological Medicine," 1876, that in 1842 he was present at a series of experiments which went to demonstrate in the most decided and unequivocal manner that the stimulation of many parts of the cerebrum of man did excite both sensation and motion. He adds: "I affirm that 28 long years before Hitzig ascertained and taught the fact as stated, the same was known to the late Dr. Elliotson, to the late Dr. Engledue, and to Messrs. Atkinson and Syme, of London, including others who may be nameless. It is not now, as it was then, so really dangerous to announce the discovery of things new and strange. The present age *is*, we will hope, less illiberal than I knew and even felt it to be at the time referred to. Drs. Hitzig and Ferrier would not be reaping the happy harvest of their very commendable labours if things were not now altered for the better."

SELF-ESTEEM AND FIRMNESS.

You will observe in Figs. 4 and 5 Ferrier's centre (1), which when stimulated causes (he says) an animal to "extend its legs."

The phrenological organs of self-esteem and firmness partially lie on this part. It is a large centre. So far as a monkey (the animal that Dr. Ferrier illustrates his findings by) could imitate the outward expression of self-esteem and firmness in men, it did it. You may have observed that conceited and obstinate people extend their legs and put down their feet with much exhibition of their self-satisfaction and determination.

VENERATION.

The centre 2 lies on the organ of respect, veneration, godliness. This is the sentiment that a lower animal may

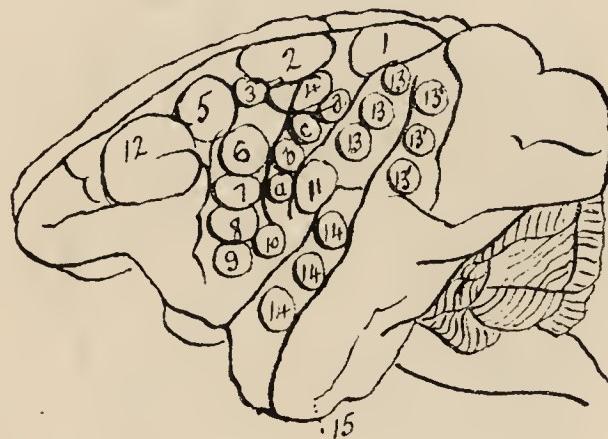


FIG. 6.

not be able to exhibit,—yet Dr. Ferrier's monkeys exhibited "flexion of the thighs, rotation inward of the leg, with flexion of the toes," the nearest approach to bending the knee in worship that a monkey could be expected to exhibit.

HOPE.

The centres 3 and 4 are on the organ of hope. The only action that Dr. Ferrier obtained from 3, different from 1 and 2, was that the tail moved (page 241 of "F. B").

I have often seen dogs move their tails when hoping for favours from their master.

The centres 2 and 3 do not seem to exist in the brain of the cat ("F. B.", page 257). A cat therefore cannot exhibit any outward expression of hope or respect. Dogs can. Everyone must have noticed this difference in the conduct of the two animals, and, on page 250, Dr. Ferrier, after exciting 3 in dogs, observed a "lateral or wagging motion of the tail."

The religious organs are located by phrenologists in the areas marked 2, 3, and 4 by Dr. Ferrier. They excite persons to progress, "upward and onward."

When monkeys were excited by Dr. Ferrier in the region marked 4, they appeared to "raise the body upwards and forwards as in climbing a trapeze" ("F. B.", page 241).

BENEVOLENCE.

Further, when he stimulated 5, which is on the phrenological organ of benevolence, the monkey did its best to confirm phrenological teachings, for it showed "extension forwards of the opposite arm, as if the animal tried to reach or touch something in front." It wanted to lend a helping hand.

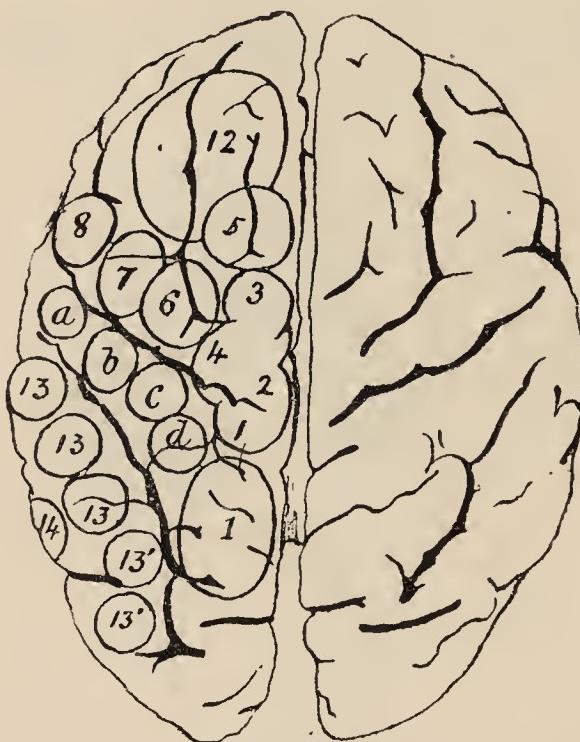


FIG. 7.

Dr. Ferrier produced "flexion and supination of the forearm" when he excited 6, and says: "This action is apt to be associated with 7, which, when excited, produces retraction and elevation of the angle of the mouth." These centres are on the phrenological organ of sublimity, and I suppose it would be impossible for monkeys to give expression to this sentiment in any other way than by "supination of the forearm," if it can express it at all. It is near spirituality or wonder, and their outward sign, *supination of the forearm*, is often seen when a person expresses a sense of the terrific, sublime, or wonderful.

Dr. Ferrier found when he excited the centre 8, that he produced "elevation of the ala of the nose and upper lip with depression of the lower lip so as to expose the canine teeth." This evidently is the upper part of the organ of acquisitiveness;

and those of you who have noticed the action of bears when they wish to acquire food from a visitor to their dens, will be struck with the exactness of this description. The centres marked 9 and 10, when excited, produced "opening of the mouth, with protrusion (9) and retraction (10) of the tongue," and (11) retraction of the angle of the mouth. Some people are acquisitive in regard to property, others to food, others to knowledge. The lower animals care most for food, whence the actions described under 8, 9, 10, and 11, and possibly also of the centre *a*, which is close to these centres; for a cat, when galvanized on *a*, exhibited "clutching or grasping action of the paw and protrusion of the claws" ("F. B.", pp. 257-8); and in monkeys Dr. Ferrier states that the excitation of *a*, *b*, *c*, *d*, causes "flexion of the fingers and clenching of the fist" ("F. B.", p. 242).

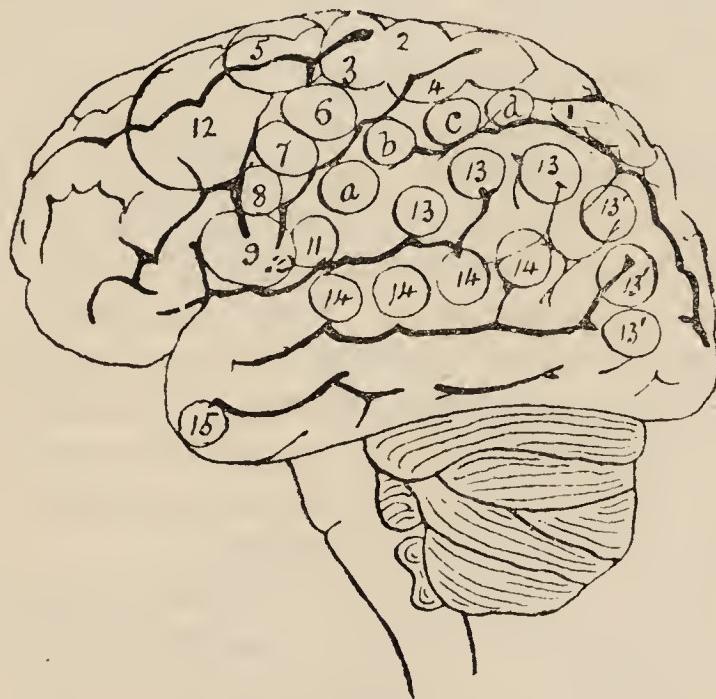


FIG. 8.

People with large acquisitiveness may be seen clenching the fist whether sitting or walking. "Getting" lies between secretiveness and constructiveness. People construct to get, and when acquisitiveness and secretiveness are both large, they get to hoard. It is a remarkable fact that Dr. Spurzheim marked the organ of acquisitiveness across the sylvian fissure, taking in part of the inferior frontal convolution and the superior temporal convolution. This no doubt shows its various uses. The animals stimulated by Dr. Ferrier could not exhibit any signs of a desire for knowledge or virtue, but they could for food. Hence they protruded and retracted the tongue and opened the mouth.

Respecting the excitation of *c* and *d* in cats Dr. Ferrier

makes no report. I will tell you why. These centres are the organ of conscientiousness, and if you will examine a cat's head you will notice a remarkable deficiency in this part. For a similar reason he could not excite 2 and 3 in cats. If he will continue his experiments, he may be able in time to differentiate between the parts *a*, *b*, *c*, *d*, and the numerous centres that he marks 13 and 14.

WONDER.

Respecting the centre 12, Dr. Ferrier says its stimulation causes "the eyes to open widely, the pupils dilate, and head and eyes turn to the other side." And occasionally this action is apt to be associated with that described under 5. In the case of the stimulation of this centre in the jackal, Dr. Ferrier says "both eyes were widely opened, the pupils dilated, the eyes turned to the opposite side, the head bending and turning in the same direction. In the one case the eyeballs were converged, and the ears pricked up, so as to give the appearance of earnest attention." This centre covers the phrenological organ of "Faith," "Wonder," or Spirituality. And so far as jackals, by "earnest attention," opening of eyes, &c., can express themselves, they certainly exhibit this function. This part of the head was very large in Tasso and Sir Walter Scott. Tasso had greater ideality than Scott; Scott greater veneration, eventuality and language, than Tasso. Hence Tasso was the better poet, Scott the better novelist—second to no one in romance—in description of the marvellous and supernatural. Both delighted in romance and chivalry.

Dr. Ferrier says ("F.B." page 258) he has not found any point corresponding to 12 in the dog and jackal, though on page 255, ("Experiments on Jackals,") he says: "Both eyes widely opened, the pupils dilated, the eyes turned to the opposite side, the head ultimately turning in the same direction. In the one case the eyeballs were converged and the ears pricked up so as to give the appearance of earnest attention." This contradiction reminds us of the contradictory statements Dr. Ferrier makes in regard to the cerebellum.

Dr. Ferrier has marked 6 centres as 13 and 13'. They are on and around the angular gyrus—both anterior and posterior to it. Munk and others have shown that lesion of the angular gyrus causes physical blindness, and numerous experiments have shown that non-perception of danger is observable in those animals that have had this part of the brain destroyed. This area corresponds with the phrenological organ of caution. The middle one marked 13' is on the organ of combativeness. The former part (caution) was very small in Lord Nelson, the

latter part (combativeness) much larger. This combination cost him an arm, an eye—his life. You will observe that people who cannot see danger, or are, as Munk puts it, physically blind, those who have an experience of “accidents,” have this part (the centre of the parietal region) small.

(*To be continued.*)

MESMERIC POWER.

By JAMES COATES, PH.D., F.A.S.

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BRAID’s theory that all phenomena in mesmerism depend solely upon certain bodily and mental (psychical) states in the patient, and not in the will or passes of the operator exercising a specific or any influence, cannot now be very well entertained. How far Heidenhain borrowed his theory from Braid it is hard to say, but neither his view nor that of Braid’s can be sustained *in toto* even by those who have been most favourable to them. Braid forgot, or perhaps never understood, what “unconscious suggestion” is. He also omitted to notice that at the time of making his researches he was in his physical and psychical prime. Thus sound in body and in mind, inspired by certain convictions and the enthusiasm of research, he entered upon his labours as fully equipped in these respects as any mesmerist could desire. In the hypnotic state the subject or patient is at the mercy of the operator or the “dominant idea” suggested by him, however cruel, absurd, useful, or beneficial that “idea” may be. In the mesmeric state there comes a time when the patient cannot thus be controlled, and manifests a distinct individuality in volition, perception, reflection, memory, consciousness, and spirituality, and in this condition will manifest a desire to explore regions of thought and spirit apart and distinct from, and therefore unassociated with, the mind or desires of the operator.

It will be seen that there are in the two states distinctions large enough to supply us with a line of demarcation in thought between them. In mesmerism, however, we include all states and conditions possible under the one or the other. For practical purposes it is well to bear in mind what is possible in both states. Under either we may be able to show “that truth is stranger than fiction.” Albeit the miracles of hypnotism may not surpass those of mesmerism, they will be found sufficiently startling to affect the conceptions of the possible in many minds.

Believing with Sir Humphrey Davy “that one good experi-

ment is of more value than the ingenuity of a brain like Newton's," I shall as far as possible devote myself to relate the best way, from practical experience, to succeed in the production of similar conditions and experiments.

Granting the possibility of an "influence" (magnetic, mesmeric, or psychic), all persons practising the processes suggested by me will not only develop mesmeric power, but they will be able to conduct experiments on the lines indicated. This will naturally lead some to inquire: "Can mesmeric power be acquired?" I answer "Yes;" practice makes perfect in this as in other things.

In the light of modern science, in this department of knowledge there is verily nothing new under the sun. For example, in Hippocrates and his "frictions," Heidenhain and his "monotonous strokings," the priest of On and his "mystic passes," Mesmer and his animal magnetism, the Indian Fakir and his string of beads, the electro-biologist (?) and his zinc disc, the Arab priest and his porcelain plate, and in Braid and his pencil-case, we may trace the same range of fanciful theories and identically the same methods.

However curious and varied the psychic states evolved by mesmerism, somnambulism, sensorial visions, thought-reading, clairvoyance, and psychometry, with their equally strange and apparently abnormal physical correlatives, all these conditions have and may occur in and to individuals without either the intervention of hypnosis or mesmerism. This being so, one is led to the following conclusions: (1) that many of these conditions can be self-induced, and are natural in their character; (2) that many are intimately related to disease or disordered cerebral and nervous conditions, and are pathological in character; and (3) that they may be induced by the operations of intelligent or psychic influences—not distinctly traceable to the subject, to disease, or any known operator—but which are claimed to be spiritual, or at least extra-mundane, by the person under influence.

How can mesmeric power be acquired? for it is evident, as some persons are so much more successful as operators than others, that there must be some difference, either inherent or acquired, to account for it. Mesmeric power is natural or innate, just as one person may have greater mental powers than another. These innate capacities can, by persevering assiduity, in a large measure be cultivated, and no one can hope to be a successful mesmerist or hypnotist without practice, and that inspired by the genius of hard work. It is one thing to read in the public press of "Mesmeric Miracles," and another thing to reproduce them. Fitting conditions are

absolutely necessary. As the conditions vary both in operator and in subject, the results must vary too.

Apart from the foregoing, I do not think that there is any class of men better adapted to be operators than another class. Dr. Drayton in *Human Magnetism* has accepted my conclusions set forth in *How to Mesmerise* on this point. He also says:—"There is no specialism in this matter ; all well-organised persons have some degree of power to magnetise. All who exercise influence or control over others in any way possess some measure of ability to be effective in this respect. We know men of the nervous, the bilious, the vital constitution (or temperament) who are skilful operators. The man of fairly balanced organisation, self-reliant and calm, is likely to prove successful. Good-nature has doubtless much to do with one's capacity, just as it has much to do with one's acceptance in general society." To which I might add, whatever contributes to the health, vitality, goodness of heart, and soundness of the head of the mesmerist, contributes to his mesmeric powers, health and vitality and a knowledge of the subject being the leading requisites.

Nothing succeeds like success. One successful experiment assists the mind to undertake greater efforts. This is true in every department of life. For instance, the fingers of the musician trip from key to key without conscious effort. The manual work done is almost automatic, or such physical action is governed by an obscured consciousness. In the loftiest flight of the musician's genius there is no conscious effort of either eye or hand in the production. Yet this is not effected without earnest and studious application. Thus in many things the conscious efforts of a beginning become the unconscious or automatic habits in after life. So let every would-be mesmerist remember, that only as the eyes and hands are in this sense the instruments of the mind may they hope for satisfactory results. However necessary it may be to make this movement and the other motion, now to gaze, make a pass, or diligently rub some sensory nerve track, or all three combined, the utmost dexterity in processes merely will not make the successful operator. The operator is the mind—the man behind all such efforts. Expertness can only be a growth—the result of an intelligent appreciation of the nature and character of the subject, aided by diligent and resolute application.

Next to the tact, patience, and perseverance which indicate the mental status of the operator, are the ease and grace with which he goes about his experiments. His eye and hand must readily respond to the operations of his own mind ; all

he does should be done with intention. He should also be positive to opposition, be able to look his world calmly in the face, and be at ease in any company, and thus be prepared, under any circumstances, to "go on," no matter who is present.

If not able to do so, he invites defeat. If, in addition to nervous susceptibility, he indulge in "yard-arm swinging" and other awkward tactics, he invites derision and ridicule not only from "those present," but from the subjects over whom it was intended his power would be exerted.

It therefore follows that certain qualifications are necessary, and that certain methods are useful. These methods should be practised over and over again for obvious reasons. They contribute to self-improvement in health, stamina, endurance, energy, also mental decision, precision, concentration, and projection. And these characteristics—so essential to all, and especially to the mesmeric operator—I hold are just as susceptible to the influence of education, improvement, or culture, as are a love of music, an ability to design, or literary tastes.

PATIENTS OR SUBJECTS.

It has been indicated everyone can in a manner mesmerise ; so can everyone be subjected to its influence. "What," says someone, "can I be controlled against my will ?" Yes, certainly, if your will is an inferior one, and most certainly, whether or not, if you furnish in your organisation the requisite temperamental appositeness to the operator.

There are few persons who are not susceptible to the influence and direction of others. It is not necessary to put people asleep to control them. We see men and women controlled every day in some one direction or another without being actually conscious of mesmeric or any directing influence. It follows that there are a large number of persons who are naturally susceptible to hypnosis. I also know that there are a large number pathologically susceptible, and I further know that many, who are neither naturally nor pathologically susceptible, can be made so by certain methods of procedure.

The hypnotic subject is and can be drawn from a very large field. This may look unfortunate at first sight. Nevertheless it is not without its decided advantages ; it harmonises with Nature's laws. There are many sheep, few shepherds. Those who can control are relatively less numerous than those who can be controlled. Bees swarm, so do men, under one leader.

Let the truth be told. There is more power in one ounce of honest truth than a ton of lies and mystic fudge. Richet,

the eminent French hypnotist, has said : "No one is absolutely insensible to magnetism, but it is certain that there are great variations of susceptibility." Now, while all that has been said is important, the selection of subjects should be no haphazard matter ; certain principles should govern the selection. These principles are perhaps better understood by the physician or experienced mesmerist, and are not of a character to be easily grasped by everyone. For instance, there are pathological indications. Persons who are pale—not necessarily unhealthy—are subject to hypnosis. All nervous derangements furnish their quota of subjects. The drunken, and even the insane, present favourable conditions, the only exemptions, in my opinion, being the types of humanity one sees used at public entertainments to demonstrate mesmeric (?) phenomena.

I have frequently influenced persons who were healthier than myself, and hypnotised many who were my superiors in intelligence. True enough, persons possessing these characteristics are not affected so readily as others may be. Several sittings may be necessary ; but what of that, if success crowns effort ? Strange as it may appear, I have always found men more susceptible than women or children. This is borne out in the experience of many others. I at first thought that this arose largely from my own practice, in which the male sex have bulked almost exclusively.

The number of persons to each particular operator may in a sense be limited. Where one operator may fail another may succeed ; in fact, it is worth while to remember "all sorts and conditions of men" can be mesmerised.

There are many methods of testing susceptibility, such as making passes over the back of a person's hand and noting carefully the sensations indicated by them. Dr. Ochorowitz, a Polish physician residing in Paris, has invented a grooved magnet for testing susceptibility. Tests with this hypnoscope seem to indicate that about 30 per cent. are susceptible to magnetism or hypnosis.

OVERWORK.—II.

THERE are people who think that brain and muscle are antagonistic, that the more the one is cultivated the less the other will be. To a certain extent they are quite right. If the muscular system be over-developed, it will be at the expense of the mental, and *vice versa*. A child exhausted with a long walk should not sit down to lessons. I have noticed even that a day spent in following the hounds is

followed by an evening in an easy chair, close to the fire, frequently in a drowsy condition. The stone-breaker after twelve hours of work does not settle down to books on reaching home ; if he did it is to be feared that his work would not be profitable. On the contrary, if the brain be worked to its highest capability of production, exercise must be lessened or entirely done away with ; only, after long spells of such work, perfect rest is required to make up for the excessive consumption. Other things being equal, the better the physical system is developed, the better the brain will stand work ; and this is especially the case with growing children, who are glad of muscular exercise and will be in better trim for lessons if their play be not stinted. Brain work is supposed by many to be especially pernicious ; and it certainly has its dangers. And yet perhaps no other work has so added to the happiness of the human race.

The brain is simply a mass of protoplasm, highly differentiated and set apart for a special purpose. Nevertheless, it does not differ from protoplasm generally, and therefore when it acts it dies. Of course, on its activity depends its blood supply ; wherefore the more active it is, the better nourished and the more capable it will be of doing work. Sufficient rest is essential ; and yet, unlike the muscles, the brain does not always demand rest when it is most needed, and in this peculiarity there is a subtle danger. The tired and exhausted brain should, after a hard day's work, be completely restored by a night's rest, and the worker should rise fresh and eager in the morning for another day's toil. But this is not always the case.

Let us suppose that the brain is equal to 300,000,000 molecules. During work some of these will be destroyed. If sufficient time be allowed for repair, they will all be replaced. If the time for rest only permits the replacement of 299,999,999 the loss will be so slight as to be subjectively imperceptible ; but if the same amount of work be attempted, the loss on the succeeding day will be slightly increased ; and this imperceptible loss may continue for a long time without the worker or any one else dreaming that the account is imperfect :—month by month and year by year there will be a constantly growing poverty, no more irresistibly perceived than many a slowly growing pecuniary bankruptcy. At last not enough molecules are left for labour, and nervous breakdown ensues, with perhaps scarcely enough of molecules remaining to rebuild at all the mental machine. It is not hard to understand in this light why so long a time is required for the recovery of a case of nervous exhaustion.

How is it that the brain can go on working for a long period without perceiving its own intense weariness? To understand that we must consider the benumbing effects of excitement. The warrior in the thickest of the fight may be quite unconscious that he has received a severe wound; people who work mentally usually love their work, and there is frequently a great deal of excitement about it, and it is this excitement that often not only tends to benumb sensation, but even increases the speed of the work, which can only be obtained by the exercise of great power. The stockbroker or speculator on a Black Friday may do little or no work physically, and the mental work may be small compared with that of a scholar;—yet the excitement may cause such a strain on the nervous system that months may be required to repair the mischief of a single day.

Then there are the bad effects of worry—more disastrous on the system than work. This may be compared to friction, which, though an unessential, seems to be as far as we have gone an inevitable adjunct of work. The better the machine the less the friction; and your work will be finer in quality and better in quantity the less you worry. With worry I would couple discontent and over-anxiety. If a man believe in the Christian religion, he has no logical excuse for these, for he knows that “all things work together for good to them that love God.” Even the pagans, who were not blessed with the revelation of a Father’s love, learnt to submit to the inevitable gracefully. Then excessive emotion is much more injurious than work: the brain-worker should learn to control himself, and to keep his feelings in subjection. It has been stated that the average life of a mathematician is about sixty, and that of a poet thirty. These statistics must surely have been taken in Germany during the “Sturm und Drang” period. But even if they are slightly overdrawn, we may learn this lesson, that mental work associated with keen emotion will wear out the vital system at a more rapid rate than work performed calmly and quietly. Nevertheless, the calmest intellectual labour may become excessive toil; and most men perform their brain work under more or less (emotional) excitement. And to-day more than ever we have to pray, “Calm me my God and keep me calm.” There are people, albeit not many, who overwork themselves needlessly in work for God with the highest and best motives, and who frequently commit the greatest imprudence. I have heard the late Mrs. Saker speak of cases of fever, often terminating fatally, brought on in the Congo, which might have been avoided if the zealous newcomers had listened to the advice of those who knew better.

The evils of indolence are many, and among them may be classed the destruction of happiness. Quite as much, however, does overwork tend to destroy joy. Without going so far as to say that happiness should be an ultimate aim, surely all will agree that it is well to see good in one's labour, and to rejoice in work. "We enjoy ourselves only in our work, our doing; and our best doing is our best enjoyment." But our best doing is impossible without the vigorous health and accompanying high spirits that are such large elements of happiness. It is related that confectioners wishing to give their apprentices a distaste for sweets, have given them leave to help themselves freely, so that by an overdose they might nauseate themselves. It is sad to think that this is being done continually with things which, while life lasts, should be a joy and a pleasure. I have heard an art teacher say he hated drawing, because he had to work so hard at it before he got his certificate. A girl well fitted to enjoy algebra, has taken a strong dislike to it because four years of her work were crowded into one. I know other students who have excelled in certain branches express strong aversion towards them, which has been induced solely by what many would call a slight degree of overwork. It is well to be doing and never done. What we want is the power of going on: but overwork defeats its own aims. The mistress of the sixth form in a large school told me that a bright girl of about twelve entered the school, who, because she was quick and intelligent, was pressed on. The result was—her health did not break down; she has only become stupid.

But it is not only mentally that overwork defeats its aim. In household work women will overdo themselves in order to have everything as nice as possible for those who have been working hard in other spheres; but their own over-exertion so irritates them, that instead of the comfort of the home being increased it is lessened thereby.

"The cost of everything," says Thoreau, "is the amount of what I will call life, which is required to be exchanged for it immediately or in the long run." Louis Stevenson says perhaps more clearly, "The price we have to pay for money is paid in liberty." A man may pay too dearly for his livelihood by giving, in Thoreau's terms, his whole life for it, or in bartering for it the whole of his available liberty, and becoming a slave till death. "There are two questions to be considered—the quality of what we buy, and the price we pay for it. Do you want a thousand a year, a two thousand a year, or a ten thousand a year livelihood, and can you afford the one you want? It is a matter of taste; it is not in the

least degree a question of duty, though commonly supposed so. But there is no authority for that view anywhere." "Men," says Claudianus, "live best upon a little. Nature has given to all the privilege of being happy, if they but know how to use her gifts."

Again, if health break down before a so-called competency is acquired, how is the aim realised then? A man intensely anxious about the welfare of his family shortened his life by going out when unfit to work; his motive was good, but he did not realise his aim.

Overwork may arise from ambition; and, though a certain amount of ambition is in itself healthy, it does not supply usually the purest motives. "There are, however, certain unhappy cases, where the ambition for intellectual distinction is directly concerned in destroying health. These are they where the ability is not equal to the aspirations, and where the feeling of incompetence leads continually to more and more strenuous exertions. But if success crown the efforts, and health be lost, will the fame, glory, and honour make up for it?"

I find most people ready to admit that overwork will do the body harm. Yet they seem to have an idea that it has a good moral influence—an opinion which tends to the Jesuitical. They imagine that there is a strange, secret, sweet self-sacrifice in any desecration of the soul or body to a worthy end; or else they have a sort of latent feeling, which they do not usually formulate, that in their especial case the laws of nature will be reversed. It shows for one thing want of self-control. To know that a thing is wrong, and yet to do it—from any reason whatever—gives evidence of a state of moral obliquity. Let us rather say with Goethe, "I will be lord over myself. No one who cannot master himself is worthy to rule, and only he can."

Then again the consequences may be irremediable. "Here is a case of heart disease, consequent on a case of rheumatic fever that followed reckless exposure. There is a case of eyes spoiled for life by over-study. Yesterday the account was of one whose long-enduring lameness was brought on by continuing, spite of the pain, to use a knee after it had been slightly injured; and to-day we are told of another, who has had to lie by for years, because of palpitation resulting from an overtaxed brain. Now we hear of an irremediable injury which followed some silly feat of strength; and again of a constitution which has never recovered from the effects of excessive work needlessly undertaken. Not to dwell on the pain, the weariness, the gloom, the waste of time and money

thus entailed, only consider how greatly ill-health hinders the discharge of all duties ; makes business often impossible, and always more difficult ; produces an irritability fatal to the right management of children ; puts the function of citizenship out of the question, and makes amusement a bore. Is it not clear that the physical sins, partly our forefathers', and partly our own, produce this ill-health, and detract more from complete living than anything else, and to a great extent make life a failure and a burden, instead of a benefaction and a pleasure ?" (Herbert Spencer.)

Again Herbert Spencer says : "Everyone knows, too, that excess of bodily energy diminishes the power of thought—that the temporary prostration following any sudden exertion, or the fatigue produced by a thirty miles' walk, is accompanied by a disinclination to mental effort ; that after a month's pedestrian tour the mental inertia is such that some days are required to overcome it ; and that in peasants, who spend their lives in muscular labour, the activity of mind is very small, while on the other hand shoemakers are frequently thoughtful men.

"So that we may imply that excess of activity in one direction involves deficiency of it in other directions. Therefore supposing the over-activity of the brain to exceed the normal activity, especially in youth, only in a moderate degree, there will be nothing more than some slight reaction in the development of the body, the stature falling a little below that which it else would have reached, or the bulk being less than it would have been, or the quality of tissue not so good. One or more of these effects must necessarily follow."

This physical reaction being certain, the question is, whether the gain resulting from the extra culture is equivalent to the loss ; whether defect of bodily growth, or the want of that structural perfection which gives vigour and endurance, is compensated by the additional knowledge acquired. When the excess of mental exertion is greater, there follow results more serious, telling not only against bodily perfection, but against the perfection of the brain itself. And this is a part cause—probably the chief cause—why precocious children, and youths who up to a certain time were carrying all before them, so often stop short, and disappoint the high hopes of their parents.

With adults overwork is not likely to produce structural defects ; if they cannot stand the strain they do not bend, but break. Instances of this may be seen in the recent deaths of Professor Elmslie and Dr. Hatch, both of whom were working far above their strength.

M. Tissot gives the following as results of intense study : "Gout, premature baldness and grey hair, phantasms, delirium, mania, tumours, aneurisms, inflammations, ulcers, dropsies, headaches, drowsiness, convulsions, lethargy, apoplexies, and the want of sleep," etc. If the evils resulting from indolence be more pernicious than these, it would be difficult to find language sufficiently expressive to describe them.

Quintilian says, "We excuse our sloth under the pretexts of difficulty. Is it not as bad to excuse our overwork under the pretexts of necessity ?" All the hard things on indolence, I find, are by the ancients ; so I have come to the conclusion that it is not a prominent modern vice. Still, in so far as it is indulged, it is an evil, and will bear its natural fruits, among which we find weariness and discontent. But these are occasioned more frequently in my experience by overwork ; for I have met, and am meeting daily, instances of over-effort, but I have never met with anybody, man, woman, or child, who was indolent in every direction.

I was told by the mother of two boys that one was very idle, the other not. I found that the idle boy was always ready to do anything involving manual labour, usually putting away his own books and his brother's too, and was fond of active exercise of any description, but not of his lessons. The other liked to sit in an armchair, close to the fire, and read from morning to night, and frequently lost his temper if obliged to move himself in any way, such as by playing cricket, walking, etc. Now I do not see why one of these boys should have been termed lazy, and the other industrious. They were both industrious and indolent in different directions. There is this difference between overwork and indolence—that over-effort in one direction lessens your power of effort in others, while indolence in one direction usually indicates increased action in another. In over-effort, the power of working is frequently destroyed ; but in indolence it is usually there potentially, and can be made use of (by adopting proper means) and developed. Faculties develop through the exercise of their functions.

Lastly, I would say that the preservation of health is a moral duty, and to indulge in overwork shows a want of saneness. Lay to heart the late Dr. Elam's words : "Fear not to do manfully the work for which your gifts qualify you, but do it as one that must give an account of soul and body. Work, and work hard, while it is to-day, for the night cometh soon enough. Do not hasten it. Use your faculties ; use them to the utmost ; but do not abuse them. Make not the mortal do the work of an immortal. The body has its claims ; treat it

well, and it will do your work—it knows its own business. Do not attempt to teach or to force it. Attend to its wants and requirements ; listen kindly and patiently to its hints ; occasionally forestall its necessities by a little indulgence, and your consideration will be repaid with interest. But task it, and pine it, and suffocate it, make it a slave instead of a servant, it may not complain much, but, like the weary camel in the desert, it will lie down and die."

THE SCIENCE OF LIFE

IN RELATION TO OLD AGE, THE RESTORATION OF HEALTH,
SIGHT, HEARING, AND THE POWER OF WALKING
WITH EASE AND FREEDOM.

NOTHING in nature plays so large a part in the Science of Life as oxygen and electricity. Faraday, who had devoted his life to the study of these elements, says of the former, while wondering at the revelations of truth which dawned upon him, "that ozone, that oxygen, which makes up more than half the weight of the world, what a wonderful thing it is ; and yet I think we are only at the beginning of a knowledge of its wonders."

In a previous publication I have endeavoured to extend that knowledge by showing its action on the heart and brain. I propose now to extend the inquiry in relation to the vitalizing distribution of the blood in the restoration of health in advanced life as regards sight, hearing, and the power of locomotion or walking.

Old age, like childhood, has its marked characteristics as to walking, sight, and hearing. It is a depressing inconvenience to the student of science, the literary man, and the man of business, to be deprived in advanced life of the power of reading, writing, hearing, walking, or of action. My personal experiences in each respect have resulted in very important discoveries that may be fraught with incalculable benefits to humanity, if understood and wisely applied. The healthy, invigorating practice of walking during youth and middle life becomes, in advanced life, a cause of trouble, pain, and decrepitude of old age, the feebleness of which is almost universal among mankind. There is also another phase attendant on old age which has not been duly diagnosed or made known. I have been led to observe the fact that it is a law of life that what may be called the continuity of nervous action may be suddenly arrested in the brain, or spinal

column, and, like the switch on the electric wire, may instantly break the current from the central battery and put out the incandescent light and life. So it may be with the cerebral centre of nervous force, when the mental power suddenly ceases, with loss of consciousness for a brief space of time. A similar break of continuity of nerve force may occur between the spinal column and the lower extremities. Both these conditions have occurred in my own personal experience.

In the year 1881, when occupied one forenoon in writing one of the last chapters of the *History of Ralahine*, I suddenly, and without any intimation, lost consciousness, the pen fell on the M.S. and rendered it useless. The condition was not that of sleep, but the abrupt disruption or loss of brain-power. On recovery of consciousness after a brief interval, I found for a few moments I had lost all recollection of the train of thought which previously occupied the memories of the brain.

I have already, in the *Science of Prolonging Life and Philosophy of Massage*, described the frequent tendency to stumble in walking a few yards, owing to feebleness and decrepitude ; but the condition now under consideration is that of a sudden loss of power over the muscles of the lower limbs, when the body falls forward to the ground, and often amid critical and dangerous surroundings.

In January, 1885, I had an attack of inflammation of the blood, when I lost my sight, hearing, and memory, caused by the coagulation in the capillaries. These conditions were arrested by the Thermal treatment described elsewhere,* and memory, sight and hearing restored.

Since the above experience, I have been led to the conviction that the feebleness of advanced life in walking is mainly due to the absence of the vitalizing power arising from the distribution of the oxygenated blood in the capillaries. When an excess of carbonic acid prevails in the blood, there arises fatigue, lassitude, weariness, and disease in the system. It is one of the causes of the frequently sudden falls of elderly persons in public thoroughfares.

On one occasion, when leaving a meeting held in Leman Street, Whitechapel, I had to cross a street crowded with loaded waggons and drays. Without any intimation, I suddenly fell to the ground, without stumbling against anything, as the roadway was either wood or asphalte. The driver of a four-horse loaded wagon handled his reins so as to steer clear of the obstacle in his path, but he shook his whip in a way that showed he firmly believed I might have prevented

* "Curiosities of Cerebral Manifestations," published in THE PHRENOLOGICAL MAGAZINE, Fowler Institute.

the fall. On another occasion I was crossing from the Strand to the refuge at the monument of William III, at Charing Cross, and, without warning, fell in front of an approaching omnibus. A policeman raised me, and piloted me to the refuge.

Subsequently to these accidents, I was led to the discovery of the methods that enabled me to overcome the feebleness in walking, shown in stumbling and falling. At that time I could only walk about a mile in two hours, while the stiffness and pain compelled me frequently to lean on the arm of a friend. Now, at 86 years of age, I can walk at the rate of three miles an hour with ease and freedom! Other illustrations will demonstrate the vast importance of the Thermal Methods, and the vitalizing power of distributing, by massage pressure and gentle percussion, the blood charged with oxygen.

On Whit-Monday, 1889, I attended a congress held at Ipswich. To catch the early excursion train, it was necessary to omit my usual methods for imparting energy and sustaining power to be enabled to reach the Liverpool Street Station. On crossing the railway bridge at Ipswich, and descending the stairs, I fell, without warning, head foremost upon the landing, half way down to the station platform. The noise made by the fall brought a porter, who found me seated, trying to raise my crushed hat from its tight position over my ears. The hat was crushed into the form of a flexible opera hat, but the skull was intact.

On the 13th, 14th and 15th of August, 1886, I had omitted the treatment. On the last day named I went into the city on business, and, soon after leaving the railway, I felt all the old symptoms of age and decrepitude; so feeble, stiff and full of pain in the lower limbs that I had to give up several calls, and returned to Hammersmith to resume the methods of renovation by the Thermal treatment and percussion.

On the 18th of August, 1888, Mrs. Craig and myself, both had an extra ten minutes of the application of the system of renovation of vigour and energy, by giving 100 gentle percussions instead of 50 to the muscles, &c. We then started for the Industrial Exhibition at the Crystal Palace, Sydenham, and walked about until ten o'clock p.m., when we arrived at home! A short time after my return I began to feel tired and weary with the exertion.

As no medicines were used on these occasions, it is clear that the methods used realized what was, in fact, a revival of vital energy in the bodily powers, as I can now, at eighty-six, walk three miles an hour, and have repeatedly walked about London from 10 a.m. until 5 p.m., which may be estimated

at not less than ten miles. A great boon and a blessing is therefore at the command of those who have passed an active and industrial life.

With the methods thus illustrated, I have added eleven years to my existence, and have recovered the power of speaking in public as a lecturer. Though nearly blind and apparently dying in January, and unable to read from July, 1889, to March 1st, 1890, I recovered my sight so as to read the letters of my correspondents. Until the latter date all papers were read to me. I had applied to the Institute for the Blind in Cambridge Square, and an official called on me and presented me with a corrugated cardboard for guiding the pen; but I could not make any use of it. A more practical plan has now been offered to the Institute. In the meantime, I have partially recovered my sight—so far as to be able to produce this chapter of new ideas and new methods for the help and advantage of the producing or working classes. The methods are simple, inexpensive, and at all times available. The methods only require patience, will, and perseverance, to prevent premature death, and produce a comparatively vigorous old age that can enjoy the delights of an existence free from pain, despondency and apprehension. I owe my method of relieving the occasional deafness to the Thermal principle applied to the ear.

Although I have recovered my walking powers, sight and hearing, the two latter are often weak, and the muscular energy lost, if the treatment be discontinued.

A literary critic holds that my conclusions are formed on an "obscure basis" and "pines for further details." The above record gives some additional particulars. The objection against the slender foundation of the principles proclaimed, is one that has been urged against the discoveries of men who are to-day held in the highest esteem and profound veneration for their wisdom, accuracy, and originality. Nearly all the great inventors and discoverers have been reviled, persecuted, or opposed. La Place was held to have formed his system of planetary formation on too nebulous a basis. Galileo was deemed blasphemous and dangerous for demonstrating that the earth and her attendant satellite moved round the great central sun annually, and with a diurnal revolution at the same time. In spite of imprisonment by the Inquisition, he cried, "Still it moves!"

Columbus could, on a small basis of fact, such as a piece of drift wood and an Indian's moccasins, comprehend the existence of a New World some three or four thousand miles away. He goes over the trackless ocean, and discovers

North and South America ! Dr. Franklin had a limited basis for attempting to fly his electric kite, and bring the electric current from the clouds to the earth. Stephenson made travelling by railways possible by the simple act of driving a current of surplus steam through the firebox to increase the draught and evolve the latent heat in the sluggish coke. Kepler had but slight materials out of which to evolve his great law in 1619, which will be ever memorable in the history of science, "that the squares of the periodic times of the planets are to one another as the cubes of their distances."

It is the province of thought and genius to realize marvellous results from obscure data, and confer magnificent benefits on humanity. Edison develops the electric light till it rivals the great central luminary, and invents a telephone that can repeat the voice of a Gladstone three thousand miles distant from the orator !

Dr. Gall, from the most obscure indications, developed a great and altogether new physiology of the brain, and a scientific method of dissection and exposition of the functions of the cerebral organism, with the highest possible benefits to the mental powers of man. So it may be possible for great and far-reaching results to arise from the above and the following details.

In 1877 the physician who attended me, by the aid of his clinical thermometer, was enabled to discover that the inflammation of my blood was indicated as being $101\frac{2}{5}$ degrees, and that I was in a dying state. When he retired he left me no prescription, and as my own clinical thermometer indicated the same condition, I knew my fate was sealed if means were not discovered to arrest premature death. From these circumstances I was forced to study the Science of Life, and by the knowledge and experience gained therefrom was enabled to arrest the inflammation of the blood and the decay which seemed inevitable. During six subsequent years I had one or two attacks yearly of fever and inflammation of the blood. Without informing the physician, I used the means I had discovered and already described in the book above-mentioned. In 1886 the physician met my son, and said : "Mr. Craig endured what would have destroyed half-a-dozen strong men of thirty years of age."

In 1885 I was said to be on my death-bed, as described in a paper in the PHRENOLOGICAL MAGAZINE, and as a pamphlet entitled "Curiosities of Cerebral Manifestations," from which I take the following passage :—

As Professor Billing says, "There is but one loss of power in the

capillaries of all grades from mere loss of tone to actual decomposition—melting away.” Remedies must therefore be applied to the capillaries, not to the circulation or the blood. The phosphorus now acted directly on the nerves of the capillaries, and arrested inflammation and decay. The hearing began to be restored, and with it great sensitiveness and irritable sensibility to sound. Even conversation had to be avoided as before.

On Monday morning my hearing was so far restored that I could hear Mrs. Craig read, ten feet distant, the beautiful lecture delivered by Miss Helen Taylor, at Eastbourne, and just received by post. Some few hours later I was able to read the lecture in the usual newspaper type.

It was, as it were by a sudden inspiration, that I was induced to apply the thermal and vitalizing distribution of the blood by light percussion hammers, massage roller, and instruments devised for the eyes and ears, and already described and illustrated by diagrams. Fabian Bland says all this is absurd.

Again, the severe frost of January 2nd, 1889, brought me once more within view of the Valley of the Shadow of Death. The physician first mentioned, Dr. C., said I was in a dying state, and so far gone as to prompt my friends to urge me to make my will. I had no riches, real or personal, to bequeath. I had earned considerable sums, as much as £25 to £30 a week for lectures and professional fees in 1843. I had been an abstainer throughout life, both from intoxicants and other luxuries, while I freely spent my resources for the benefit of others. But to meet possible contingencies in my family I had my will made out. It consisted of a single paragraph and a single sentence. But there was a dilemma. I could not see the place where “to sign,” so the witness to the will, Mr. James Hole, guided my hand to the marks I made. After being seriously ill, and requiring four different nurses to attend me through the night for three months, I recovered, and for the first time by medical treatment,—with bark and a medical diet, assisted by the thermal methods already described.

In July 1889 I again became blind as to reading and writing. I applied to professional men and scientific opticians without success, as they “could do nothing further” for me.

I ultimately resorted to the methods adopted, and on the 1st of March, 1890, I, for the first time for many months, read my letters as delivered by the postman !

When Fabian Bland speaks of Mr. Craig’s Law of Exosmosis “as absurd,” he is evidently not aware that it is the great law of Nature in the growth and development of organic life in the animal and vegetable world. He sneers at the supposition of separating the constituents of water, not knowing that electricity holds together the tear-drop of sympathy as well as the mighty masses of water that every

moment dashes down the Falls of Niagara ! Take away for an instant the cohering electricity, and the waters would become masses of solid ice ! It is easy to see where his own absurdity comes in. Human nature is governed by uniform laws, and we must study and obey them if we would secure and retain health and life.

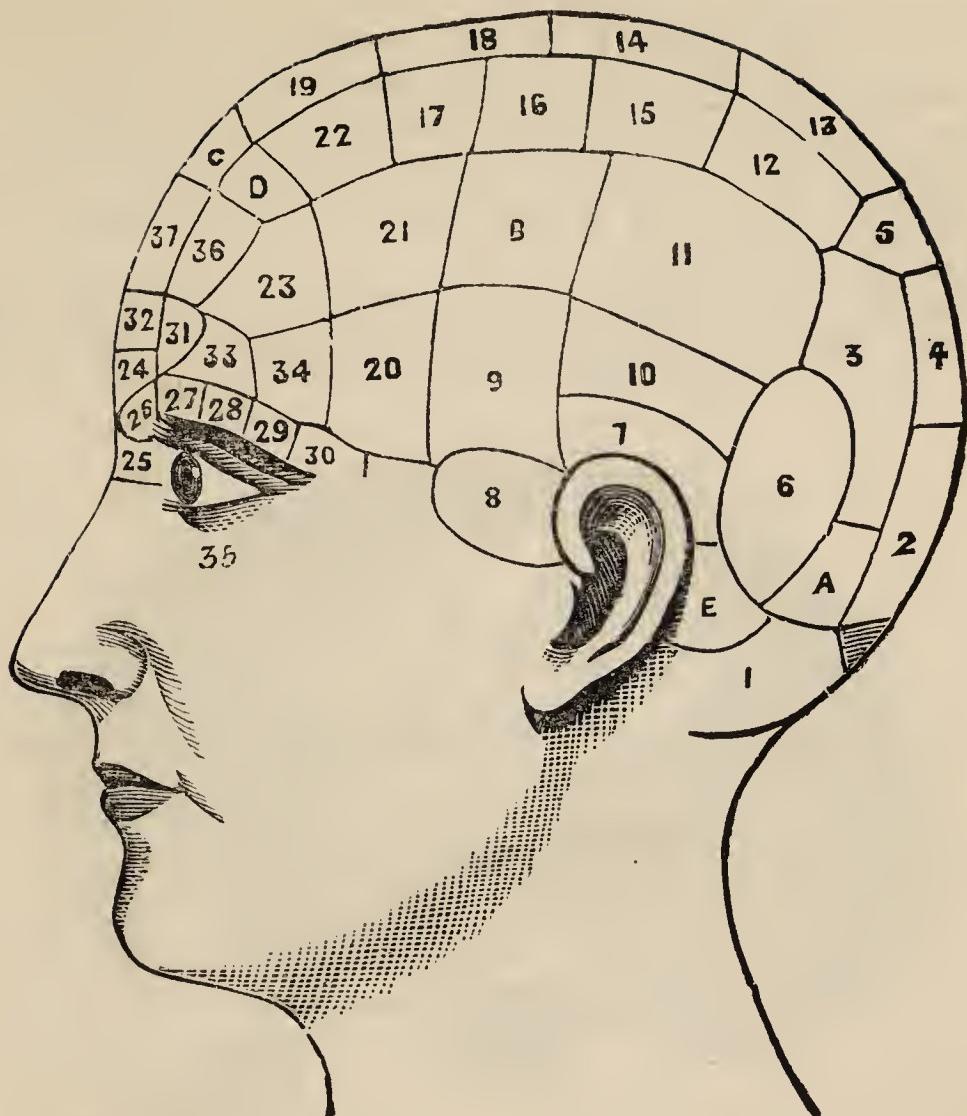
The pen I hold with the flowing ink, which I can now see, and the whole of this article thus far, are also evidences of a partial restoration of sight. I admit it is a difficult task for mere literary culture to comprehend the laws of life, and that prejudice and ignorance must stand in the way of truth until all Schools and Colleges educate their students in a SCIENCE OF LIFE.

E. T. CRAIG.

WE desire to call the attention of our readers to the catalogue of books, Magazines, and periodicals in this month's magazine, for the use of members of the Fowler Institute. Fresh works and magazines will be added from time to time as issued. The secretary would be pleased to receive any gifts of books bearing upon the study of Mental Science, etc., for the library, and will duly acknowledge the same.

INFLUENZA CURING INSANITY.—A remarkable result of Russian influenza is recorded by the authorities of the Massachusetts Insane Asylums. In seven cases the patients, through having the grippe, were restored to reason, and in each case the details are thoroughly vouched for by the medical attendants.

PHRENOLOGY A HUMBUG.—It is easy to make assertions of this kind, especially by those who do not know any positive proof regarding the subject they are trying to decry. So many firm believers in phrenology to-day have, to our knowledge, been at one time stout objectors, that we feel sure that ere long Dr. Allison will also be obliged to admit that it is through the aid of phrenology that we understand the primitive powers of the mind. The doctor seemingly needs reminding that the brain is the organ of the mind, that the mind is divided into faculties ; that those faculties have distinct locations in the brain ; and to tell a boy's character is not mere guess work—at least for a competent phrenologist—any more than it is mere guess work for a doctor to diagnose a disease by the symptoms he sees in his patient. We might with equal truth—if we felt so disposed—say that the giving of medicine was all a “huge guess,” but on the contrary, we know in skilful hands it is not so. We, therefore, invite Dr. Allison's careful study of the subject, and feel no doubt that he will eventually prove himself—like Henry Ward Beecher, and Dr. Vimont of Paris—an ardent believer in mental science, and will then retract his assertion that phrenology is humbug, made in a recent number of the *Weekly Times and Echo*.



NAMES OF FACULTIES.

- | | |
|---|---|
| 1 Amativeness—Sexual love, affection. | 19 Benevolence—Sympathy, kindness. |
| A Conjugal Love—The pairing instinct, oneness of affection. | 20 Constructiveness—Ingenuity, tools. |
| 2 Parental Love—Love of offspring and all young. | 21 Ideality—Taste, love of beauty, poetry. |
| 3 Friendship—Sociability, gregariousness. | B Sublimity—Love of the grand, vast. |
| 4 Inhabitiveness—Love of home and country. | 22 Imitation—Copying, aptitude. |
| 5 Continuity—Application, consecutiveness. | 23 Mirth—Fun, wit, ridicule, facetiousness. |
| E Vitativeness—Desire to live. | 24 Individuality—Observation, to see. |
| 6 Combativeness—Defence, courage. | 25 Form—Memory, shape, looks, persons. |
| 7 Destructiveness—Executiveness. | 26 Size—Measurement of quantity. |
| 8 Alimentiveness—Appetite for food, etc. | 27 Weight—Control of motion, balancing. |
| 9 Acquisitiveness—Desire to get, economy. | 28 Colour—Discernment and love of colour. |
| 10 Secretiveness—Self-restraint, policy. | 29 Order—Method, system, going by rule. |
| 11 Cautiousness—Guardedness, fear. | 30 Calculation—Sense of numbers. |
| 12 Approbateness—Love of praise. | 31 Locality—Memory of place, position. |
| 13 Self-Esteem—Self-respect, dignity. | 32 Eventuality—Memory of facts, events. |
| 14 Firmness—Stability, perseverance. | 33 Time—Telling when, time of day, dates. |
| 15 Conscientiousness—Sense of right. | 34 Tune—Sense of sound, music. |
| 16 Hope—Expectation, anticipation. | 35 Language—Expression by words. |
| 17 Spirituality—Sense of the Unseen. | 36 Causality—Thinking, originating. |
| 18 Veneration—Worship, respect. | 37 Comparison—Analysis, inferring. |
| | C Human Nature—Sagacity, intuition. |
| | D Agreeableness—Pleasantness, blandness. |

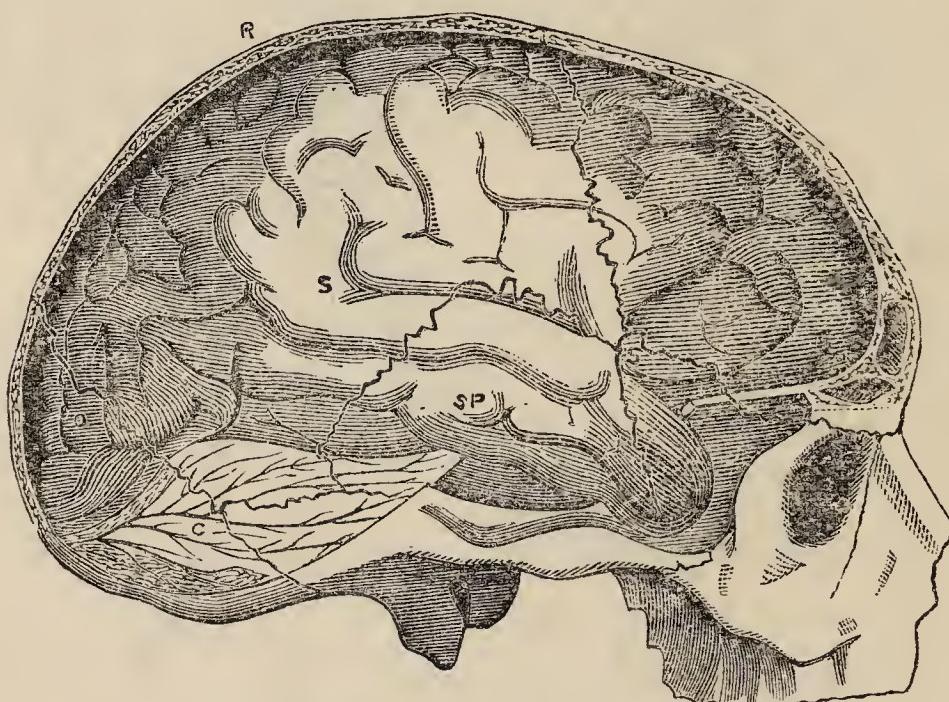
PHRENOLOGY
PROVED, ILLUSTRATED, AND APPLIED.

GENERAL REMARKS IN PROOF OF PHRENOLOGY.

PHRENOLOGY professes to point out a connexion between certain manifestations of the mind, and particular conditions and developments of the brain. It asserts, for example, that the feeling of benevolence or kindness, is always manifested and indicated by means of, and in

proportion to, a given portion of the brain; (see cuts;) and that the same is true of cautiousness or circumspection, of love, hatred, and reason, and of all the other mental faculties and feelings; and, *vice versa*, that the relative developments and various conditions of given portions to the brain, manifest and indicate the character and talents of individuals; so that the one can be always ascertained by an observance of the other.

Phrenology also claims to be a new and complete system of intellectual and moral philosophy, and professes to develop and



illustrate the fundamental principles of human nature—principles which are inseparably connected with man's improvement and happiness, and which embrace every thing pertaining to him as a physical, moral, and intellectual being. It rests for support, in part, upon the truth of the following propositions.

I. The brain is the organ of the mind, or that corporeal instrument which the mind employs in the exercise of thought and feeling. This proposition is established by the following arguments.

First. How impossible soever it may be for us to comprehend the connexion between mind and matter, it is, nevertheless, indisputably true, that we have no knowledge of the operations of the mind, except through the medium of its physical organ, the body. This fact admits of the most ample proof, but, without proof, it must be obvious to every one who reflects at all—obvious that we know nothing of mind, in this life, as a separate entity, or a thing that acts independently of its organic apparatus.

Second. Since the body is the instrument of the mind, it follows, that the mind must act upon the physical world, either directly through the whole body, or by means of some particular portion of it. But it would be absurd to suppose that the mind employs the whole body as its corporeal organ, for it is well known, that the

various parts of the human frame, with the exception of the brain,* such as the limbs, the lungs, the heart, the liver, the stomach, the viscera, &c., are exclusively occupied, each in performing its particular class of functions. Hence it may be inferred, analogically that some particular portion of the body is allotted to the exercise of the mental functions—a class of functions immensely more important than all those which fall to the lot of the whole body besides: and inasmuch as all the other parts of the body are known to be employed in the performance of the other functions, it follows, that the brain must be devoted to the performance of the intellectual functions.

Third. Another and, perhaps, stronger evidence that the brain is the organ of the mind, may be derived from its important location in the human frame, and the extreme delicacy of its wonderful structure. Look at its commanding position, in the superior and crowning portion of this majestic structure called man! See the matchless skill of the Divine Architect displayed in protecting, from external injury, this exquisitely-wrought instrument; first, by the skull so elegantly and wonderfully shaped, and so judiciously divided into its various frontal, lateral, and occipital portions, and all these so ingeniously and so strongly joined together by their respective sutures! And in order still farther to strengthen this bulwark of the intellect, we find the skull again divided into its external and internal tables; and these tables supported and united by an intervening, spongy substance called *diploë*, which renders it less liable to be cracked or broken. This ossific ball is also strengthened by the scalp or skin; and this, again, is both protected and adorned by a thick coat of flowing hair. But, when we take a view of the interior of this “dome of thought,” this “palace of the soul,” and survey its beautiful chambers, so superbly lined with the *dura mater*—when we look at the *pia mater*, which envelops the brain, and at the ingenious contrivance of that secreting membrane, the *tunica arachnoidea*, placed between the *dura* and the *pia mater* to lubricate and soften both—when we examine the partition walls of these chambers, formed by the *falciform* process of the *dura mater*, and the connecting fibres of the two hemispheres of the brain, styled the *corpus callosum*—when we scrutinize the cineritious substance of which the brain itself is composed, and notice the beautiful convolutions in which it is deposited—when we observe that this organ is the grand centre of all the most delicate and intricate machinery of the human frame, the finale of the spinal marrow, and of the whole nervous system, and, moreover, the recipient of, at least, one-third of the vital flood propelled by the heart—when we look at all this, the conviction is forced home upon us, that the Great Architect would not be likely to make such a display of wisdom and skill in the formation, location, and protection of the brain, unless, in doing so, he had some important end in view—unless, in short, he designed the brain to perform the mental functions.

Fourth. It has been fully proved by anatomical demonstrations, that

* The spleen may also be considered another exception; but it is too unimportant to be noticed in this argument.

the nerves of feeling, seeing, hearing, smelling, &c., have their origin in the brain, and even compose a portion of that organ ; and the functions of these nerves constitute a portion of the intellectual operations. Now, since a portion of the mental functions, is performed by a part of the brain, it is a logical induction to infer, that the remaining mental operations are performed by the remaining portions of the brain ; and, without first showing by what organ or organs the other intellectual phenomena are performed, no one can logically call in question this induction.

Fifth. An inflammation of the brain produces a derangement of the mental faculties ; and its debility causes mental weakness, and sometimes even imbecility ; but no such effects are produced by the inflammation or debility of any other portion of the body. A suspension of the action of the brain by pressure, or other causes, produces a suspension of the action of the mind, while the animal functions continue to operate. The destruction or injury of even a portion of the brain (when it reaches an organ on both sides of the head), causes a derangement of some of the mental faculties ; but the mutilation of any other part of the body, such, for example, as the amputation of a limb, produces no such effect. How can these things be accounted for on any other principle than that which recognises the brain as the organ of the mind ?

Sixth. There is found to exist a reciprocal proportion between the power and qualities of the mind, and the size, activity, and shape of the brain. An observation of the various classes of animals will illustrate this position. The worm has little or no brain, and (except sensation) little or no intellect or passion. The frog, the toad, the turtle, &c., have a contracted and flattened brain, and the mental power proportionally weak. The dog, the monkey, the elephant, &c., possess a cerebral development far superior to those animals last named, and an intellect equally superior. Idiots are found to possess brains vastly inferior to those belonging to men of ordinary talents ; and these, again, a development of this organ far inferior to that of a Franklin, a Bacon, a De Witt Clinton, a Webster, a Bonaparte, a Sir Walter Scott, &c. ; in other words, as we rise in the scale of animated being, from the lowest grade to the highest, at every ascending step we invariably find, particularly in the coronal and frontal regions of the head (in which, according to phrenology, the intellectual and moral organs are located,) an additional amount of brain. Are these things merely the result of chance ; or do they show design ?—are they merely accidental ; or are they the result of fixed and immutable laws ?

Other arguments in favour of the proposition that the brain is the organ of the mind, might easily be adduced ; but, since it is generally admitted by the great naturalists, anatomists, physiologists, metaphysicians, and philosophers, it might fairly be assumed, and the burden of the proof thrown upon those who call it in question.

II. The mind consists of a plurality of innate and independent

faculties—a congregate of separate, primary powers. The truth of this proposition may be shown by the following arguments.

First. The mind performs different classes of functions or various kinds of operations, such as love, hatred, fear, reason, sensation, &c.; and, throughout all nature, different classes of functions are always performed by different instruments. It is admitted that seeing and hearing are mental operations, and, also, that they are performed by different faculties. (See second argument under this proposition.) It is likewise admitted, that the functions of love, hatred, reason, &c., are intellectual functions, differing in their nature and qualities no less than those of seeing and hearing. If, then, the economy of nature requires that the mental operations of seeing, and hearing, should be performed by different faculties, why should not the same economy also demand, that the mental operations of loving, hating, reasoning, &c., should also be performed by as many different faculties? The mind, therefore, consists of as many different faculties, or primary powers, as it performs different classes of functions.

Second. The mind is capable of doing several things at the same time—of seeing and loving a friend, of reasoning and feeling upon a subject, of talking, walking, looking, thinking, hearing, &c., and all simultaneously; which could not possibly be done by a single faculty. According to the theory of Dr. Thomas Brown,* the mind is but a single faculty or power, and all the various mental operations are the product of this single faculty in different states, or modes of action:—seeing, for example, is the mind, or, what is the same thing, the man, in a state of seeing; hating, the mind, or the man, in a state of hating; reasoning, the man in a state of reasoning, &c. If this is so, how can the same mind, or, what is equivalent, the same man, be in two or more different states at the same instant? How can an individual, at one and the same time, be wholly engrossed in seeing his friend and in loving him? How can a speaker carry on, simultaneously, a train of thought and a process of feeling? or how can he reason better when excited than when not excited? If this theory were true, while looking at a wound we could not feel its pain, but, with perfect ease, we might relieve its pain by simply looking at the wound, or at any other object, or by engaging the mind in the exercise of any other function; for, inasmuch as it would be impossible for us both to see and feel at the same time, the instant we should begin to look, or think, or do anything else, we should cease to feel. But since we can see the perforating needle whilst we feel its smart; can see our friend whilst loving him; can be, at the same instant, both devising and executing; can be walking, and talking, and seeing, and feeling, and reasoning, &c., simultaneously, and as these require each the exercise of the mind, it follows, that these various classes of functions, and, by a parity of reasoning, that all the different classes of mental functions, are performed by as many different faculties, several of which can be in simultaneous action.

But, say the supporters of this theory, in such instances, the mind

* Brown's Philosophy of the Human Mind.

does not perform several classes of functions at the same time, but its transition from one class to another, is so rapid as not to be observable. Let us look at this argument. It cannot be denied, that an organ which performs any portion of a class of functions, always performs the whole of that class—that, for example, the organ of vision does all the seeing, and that no seeing can be effected without its agency and action; that no digestion can be performed without the action of the stomach; that no sensation can take place except by the instrumentality of the nerves of feeling; no motion, except by the muscles, and so on; and that this principle holds good throughout all the operations of nature: and hence it follows that the action of the brain (which has been proved to be the organ of the mind) is just as necessary in every as in any operation of the mind; and, consequently, that there can be no operation of the mind without a corresponding action of the brain: and, moreover, that a change in the operations of the mind must necessarily produce a change in the action of the brain. If, then, the mind were a single faculty, and, consequently, the brain a single organ, their united transition from one class of functions to another, could be no more rapid or instantaneous than that of the eye, the finger, or any other corporeal organ, and, of course, not so instantaneous as not to be observable; and, if not observable (which all will admit), it cannot exist: and, therefore, the mind cannot be a single faculty.

Third. The diversity of human character and talents, proves the plurality of the mental faculties. If the mind were a single faculty, all minds must be exactly alike in their nature, their qualities, and their modes of action, and could differ only in their strength and activity; which is by no means the case: but, if different minds possess the various faculties in different degrees of development, they must, like the primary colours mingled in various proportions, differ accordingly; which is the fact. If the mind were a single faculty, it could work just as well in one harness as in another, and every man could succeed equally well as a poet, a painter, a musician, a logician, an orator, a mathematician, a linguist, a mechanic, a naturalist, a divine, and, in short, in every calling, and in every department of literature and science. This, however, the experience of almost every individual, even from the very cradle, proves to be erroneous. Those who are idiots in some things, are often remarkably gifted in other things; which proves that such, and, by a parity of reasoning, that all mankind, possess different mental faculties, and in various degrees of strength and activity.

Fourth. According to the principle, that the mind consists of several faculties, it is evident that, in a given time, it can perform, not only a greater number, but also a greater variety of operations, which would render it proportionately the more perfect and useful. If we look into an author, for example, we can seldom proceed far without meeting with a thought that displays the combined action of reason, wit, and fancy.

Fifth. That the mind consists of a plurality of faculties, may be

proved, in the fifth place, by a reference to the mental exercise of memory, by which we are to understand, a reminiscence of the operations of the mind. It has been shown, that, if the mind were a single faculty, its operation would be just as powerful in all classes of functions, as in any class. In this case, it could not only remember, judge, invent, construct, copy, &c., with equal success, but its memory would be just as strong when exercised upon one class of facts, as when upon any other class ; and, consequently, every one would be able to remember every class of facts with equal ease and tenacity. But this is seldom, if ever, the case. Most persons find it as easy to remember some things as it is difficult to remember others : it is both natural and easy for some persons to remember faces, but to forget names ; whilst others forget faces, but recollect names. The same holds true of size, weight, colours, dates, tunes, places, incidents, &c. Hence, there are many kinds of memory ; but this could not be the case if the mind were a single faculty : therefore, if we admit—what, indeed, the phenomena of memory compel us to admit—that there are many kinds of memory, we must also admit that there are, at least, as many separate intellectual faculties as there are sorts of memory ; *ergo*, the mind consists of a plurality of faculties.

Sixth. A plurality of the mental faculties, is also established by the phenomena of dreaming. If the mind were a unity, it would act or repose, be asleep or awake, as a whole ; that is, one portion of it could not be awake and active, whilst the remainder slept ; and, consequently, all its phenomena, so far as produced at all, would be in perfect harmony with each other. But this would entirely preclude the phenomena of dreaming ; or, at least, that kind of dreaming so very common, in which numerous vivid emotions, such as joy, grief, terror, fear, affection, &c., arise, succeed one another, and depart, without the control of the reasoning faculties.

(*To be continued.*)

THE FOWLER INSTITUTE.

THE Monthly Meeting of members of the above Institute took place on Tuesday, May 13th, in the Lecture Hall, Mr. John Melville in the chair. Mr. M. H. Piercy read a highly interesting paper on "Mind, its Growth and Development," illustrating his remarks by references to the general laws of unfoldment and growth in Nature generally, and instancing the effects of environment upon mental development.

An interesting discussion took place, in which Mr. Colman, Mr. Ashby, and Mr. Melville joined.

Several questions having been put, the lecturer replied, and a pleasant and instructive evening concluded.

Correspondence.

A COINCIDENCE. (?)

To the Editor of the PHRENOLOGICAL MAGAZINE.

DEAR SIR,—This morning, at a little before four o'clock, I awoke as the outcome of great mental distress and grief through which I had just passed in a dream, my body trembling and in a cold perspiration. I had been walking with my little boy age $5\frac{1}{2}$ years and some friends; a heavy rain overtaking us, we stood up for shelter, and, venturing forth into a maze of streets, I missed my two friends, who, threading among the people, had turned into a side street without my notice. Looking for them, my boy slipped from me, and was lost in the crowd. I became bewildered by the strange labyrinth of streets and turnings; and, quickly taking one of them which gave an elevated position, I looked down on the many windings, but could nowhere see my boy. It was to me an unknown locality; and, running down among the people, I was soon sobbing aloud in my distress and calling out the name of the child, when I awoke. With wakefulness came a sense of relief and thankfulness. Gladly realising that the whole was only a dream and still scarcely awake, I was startled by a cry of terror and pain from an adjoining bedroom, such a cry as could not be left unheeded. It came from the same child, and pierced me with a distinct sense of pain. I was immediately by his side. My voice calmed him. "I thought I was lost," was all he could say; and doubtless he was soon composed and asleep again. To me, the coincidence was too remarkable and without parallel in my own experience. Later on, at breakfast, the child gave further his dream that he had been out with me and was lost. I am only familiar with such things in my reading. Mr. Coates' article in last month's PHRENOLOGICAL MAGAZINE (page 143) mentions that "when the Prince Imperial died from assegai thrusts in Zululand, his mother in England felt the intensity of his thoughts at the time, felt the savage lance pierce her own side, and knew or felt at the time that she was childless." But I am not of the spiritual type, with only a thin parchment separation between this life of realities and the great beyond; of those who, privileged to live in close touch with the future, are the subjects of premonition and warnings. My spirituality 4 to 5, and reflectives 6, point rather the other way; but I shall nevertheless hold tight to the lad. What is the underlying cause of the coincidence? Which of the two minds influenced the other, if either?

Yours truly,

G. Cox

Clapham Common, April 20th, 1890.

THE TEMPERAMENTS.

To the Editor of the PHRENOLOGICAL MAGAZINE.

SIR,—As the organ of phrenologists in this country is a journal of education and self-culture, I beg the favour of a little space in its columns for a few words on Temperaments. This is one of the branches of phrenology which must receive more attention in the future than it has received in the past.

I have by me "Human Science," "Generative Science," and "The Temperaments," by D. H. Jacques, M.D., but none of these go far enough with the subject.

The above recognise three Temperaments only,—mental, motive, and vital. But are there not more than three?

In conversation with Professor Morgan some time ago, he mentioned that he had discovered two more Temperaments. His short description was quite sufficient to prove their existence. He will doubtless do full justice to them in his long-expected new volume on phrenology. Careful observation has led me to believe that there is still another Temperament which I should like to call the MORAL Temperament. If there is a mental, a motive, and a vital, there is certainly a moral too. As examples of such I should like to give Florence Nightingale, Rachael (Fig. 93, page 205, "The Temperaments," D. H. Jacques, M.D.,) the late F. W. Robertson, F. B. Meyer, of Regent's Park, and Dr. MacLaren, of Manchester.

It is not so much the height of the head, or the development of the moral sentiments, but temperamental qualities which go to make up a highly moral nature. I mentioned the matter to a minister who is an excellent phrenologist, and he said, "Yes, you are quite right." There is a saying that "some people are better without grace than others are with it."

Yours obediently,

OBSERVER.

What Phrenologists are Doing.

[In sending notices for this column, correspondents will oblige by enclosing their communications in an envelope and addressing them to the office of publication of the PHRENOLOGICAL MAGAZINE. Newspaper cuttings pasted on post cards are an infringement of postal rules and subject to a fine.]

BRITISH PHRENOLOGICAL ASSOCIATION.—At the ordinary monthly meeting of the British Phrenological Association held at Imperial Buildings on Tuesday, May 6th, a lecture was given by Mr. James Burns on "The Skull." Mr. Burns, in his opening remarks, briefly referred to his early studies in phrenology, taking his first interest in

the subject as a boy under the parental roof, his father having one of Geo. Combe's busts, and being a reader of Combe's works. He also referred to the profit which he derived from three years spent travelling with Mr. Fowler, whom he met at Liverpool on the day on which Mr. Fowler just landed there from America. He gave it as his opinion that there is nothing that will instruct a man in phrenology so much as to sit and observe a capable phrenologist at work. Mr. Burn's lecture was well received, being exceedingly interesting, novel, and highly suggestive, and a discussion followed in which Messrs. Story, Hall, Hollander, Owensmith, Odell, Webb, and others took part.

Our Prize Competition.

THE prize of a Ticket of Membership to the Fowler Institute for one year, offered for the best essay on "The Reasons why we should study Phrenology," has been awarded to

MISS L. F. PIERCY,
Driffield, Yorks,

whose paper we intend to publish in a later issue of this MAGAZINE. Mr. A. E. Jarvis, 16, Alfred Street, Lincoln, is second. His effort is highly commended, and we hope he will compete again.

We offer two new prizes as follows :—1st. prize, three handsomely bound volumes of the "PHRENOLOGICAL MAGAZINE;" 2nd prize, Mr. Fowler's half-guinea china Bust.

The above will be awarded to the two competitors answering correctly the greatest number of the six monthly questions appearing in the June, July, and August Nos. of the "PHRENOLOGICAL MAGAZINE."

All answers must be written on one side of the paper only, and must reach the Office of the "PHRENOLOGICAL MAGAZINE" not later than the 15th of each month.

PRIZE COMPETITION QUESTIONS.

- 1.—Who gave the name Individuality to the organ so called?
- 2.—Does blindness extinguish the passion for travel in the case of an individual having a predominant development of Locality?
- 3.—Is the organ of Weight fully established?
- 4.—What was the general development of the faculty of Order in the heads of the following great musicians : Handel, Mozart, Haydn, Beethoven, Weber?
- 5.—What was the development of Number in the poet Cowper's head?
- 6.—Do persons usually become more observant or less so in old age, and why?

Book Notices.

The Phrenological and Physiological Register.—Mr. Fowler has just issued a new edition of this popular little work, which now reaches a circulation of 166,000. The new edition has been greatly improved by the addition of a table for marking the trades, profession, diet, suitable companion, etc., and also by a chapter on modern phrenology. The price will remain the same as heretofore, 4d., making it the cheapest and most complete chart for the use of professional phrenologists.

Home-tried Recipes.

It is hoped that the following recipes may interest many families who are in daily quest of common-sense, economical, wholesome, and well-tried puddings, pies, and supper dishes, and that they may become substitutes for those most indigestible meat suppers which are so universal.—J. A. F.

PUDDINGS.

Arrowroot Charlotte. Take two tablespoonfuls of flour, three tablespoonfuls of arrowroot, one quart of milk, flavour with vanilla, three or four stale sponge cakes. Line a mould with the sponge cakes cut thin, and sprinkle with raspberry syrup. Mix the flour and arrowroot with enough cold milk to make it smooth. Put the remainder of the milk into a saucepan and stir in the mixture just before it boils; boil a few minutes, stirring all the time, then pour it boiling into the mould. Stand it aside till quite cold, turn it out of the mould and ornament with jelly.

Boiled Cup Custard. Take one pint of milk and when boiling add the yolks of two eggs and one white; add to the milk one tablespoonful of sugar; stir until it thickens. Beat up the remaining white of egg, put it on a dish and pour boiling water over it to cook it; put the custard into cups, and place a spoonful of egg on the top.

Mr. Ablett has taken his old place in Margate for the season.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions :—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs ; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent ; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

MISS G.—The photograph indicates a favourable organization for health and long life. He possesses a very positive character, and is well qualified to resist diseases and the influence of others. He prefers to do his own thinking, and has a reason for everything he does and says. He is quite original, sound in his judgment, and comprehensive in his views of things. He has more than average force of mind : he is one of the kind that cannot be subdued : to speak of him as an animal it might be said that he would fight till he died rather than give up ; not that he is so much of a fighter, but he is not disposed to surrender. He has more moral than physical power, and is much interested in reforms, improvements, and new inventions and discoveries. He is more philosophical than scientific, and is interested in public affairs. He loves to talk, would make a good speaker, and it would be to his advantage to cultivate public spirit and come before the world and promulgate his ideas.

J.W.J.—Has a predominance of the mental and motive temperaments, is rather too industrious, will find himself always busy in one way or another. His brain is specially active, and there appears to be a predominance of the superior brain, hence he will be full of his plans and projects. He is remarkable for his disposition to think, reason, investigate, argue, and go back to the origin of things. He is not so particularly scientific, although he is disposed to be quite practical. He is not good in remembering details, has not a copious command of language, but talks quite freely and correctly because the restraining powers of his mind are not strong. He would prefer a business that requires planning ; he is adapted to overseeing, having the charge of works, taking responsibilities, having a business of his own and carrying out his work in his own way. He is domestic in his disposition, but not so much a lover as he is a family man ; fond of children and home. He is comparatively independent, manly and satisfied with himself, but not wanting in approbateness, so as to appreciate the good opinion of others. He is tenacious of his opinion, does not readily surrender, but has much confidence in his own judgment. He has rather strong imagination, appreciates education and art, and will sustain himself in a discussion better than many would suppose. He must pay more attention to his physiology, spend more time in living and enjoying himself, and not work up his vitality and his nervous force as fast as he generates it.

THE
Phenological Magazine.

JULY, 1890

MR. HENNIKER HEATON, M.P.

THIS gentleman has a favourably balanced organization. He is capable of living a harmonious life, for he has balance of power. If there is any extreme in his organization, it arises from an excess of sympathy,



having a predominance of the intellectual and moral faculties. He has a favourably developed forehead, and can become interested in almost all kinds of subjects. He gathers knowledge easily, has a good practical judgment, takes everything into account before he starts. He takes a wide range of

mental vision on all subjects, and seldom fails in his estimates. He has favourable abilities for financeering, arithmetical calculations, and for systematising plans. He has a good memory of everything he sees ; has a good command of language, not that he is a great talker, but he talks to the point. He has excellent powers for analysis, makes nice distinctions, is decidedly intuitive in his perceptions of truth and of character. He has a full social brain, but the interest he takes in others comes more from his moral than from his social feelings. He has strong local attachments, he has the sense of obligation, can continue his investigations of a subject. He understands himself well, and does not become confused in his mind. He is neither vain nor proud. He takes reasonable views of his own abilities, and of the opinions of others concerning him. He generally goes right along, minds his own business, and allows others the same privilege. He is always respectful, and mindful of the welfare of others. He will usually put himself to inconvenience for the sake of others. He does not put himself above his neighbours without a good cause, but labours to secure the greatest good to the greatest number.

He has all the energy necessary to push his cause. He is more energetic when labouring for mankind than for his own selfish interests.

His intellectual powers are such as to make him very versatile in thought and feeling ; besides, he has a strong spiritual nature that aids much in giving expansion and elevation to his mind. He will be more successful than most men in going through the world pleasantly and agreeably, for he makes many friends and no enemies.

Mr. Henniker Heaton is so well known throughout the Empire for his agitation for a penny ocean postage that anything about him personally would be superfluous. L. N. F.

THE PLURALITY OF FUNCTIONS OF THE BRAIN.

ALMOST a century ago the great anatomist and brain-physiologist, Dr. F. J. Gall demonstrated the fact that the various fundamental faculties of the mind are dependent on definite parts of the brain. Yet so great and so lasting was the antagonism against the founder of phrenology, that only of late years has it dawned upon scientists that this leading principle of Gall's system is accurate.

That the various elements of the mind have separate seats in the brain admits no longer of any doubt. All the researches made by physiologists and investigations made by

pathologists since 1871 have resulted in defining distinct regions for motion and sensation. Many of the centres thus discovered are still *sub judice*, but there are a number of localisations made as to which all physiologists agree. Twenty years ago it was still thought that the various convolutions could not have different functions, as they looked so much alike. George Henry Lewes (*History of Philosophy*, 4th ed., p. 433), denied the possibility of localisations, because "the convolutions of the brain are not more distinct than the several folds of a piece of velvet, and a little reflection discloses the absurdity of supposing that one portion of this velvet could be endowed with different properties from every other portion simply in virtue of its superficial position." To-day there is no longer any doubt that this velvet-like surface of the brain is excitable in various portions, and distinct regions for the movements of muscles and limbs are defined. But—some people may ask—what has the movement of a muscle to do with thought or emotion? The answer is: It is the physiological correlative of psychological action; it is the physical aspect of mental manifestation. We must remember that this is only the result of experiment on the surface of the brain of animals, and that no electric current applied to the cortex can demonstrate directly a thought-centre. But if we study the outward visible signs of our mental manifestation, *i.e.*, the physical expression of our thoughts—the movements which occur during certain emotions, and which muscles and limbs are called into action—we shall find that only by exciting distinct regions of the brain can the same movements be effected.

Without entering into a demonstration of the various phrenological organs, or physiological brain centres, I may here point out the utility of a study of the physical manifestation of mental actions; *i.e.*, the natural language of the faculties. An analysis of the principles of pathognomy may prove of great value to mental science. Through long habit we have learned to judge a person by his gestures almost instinctively, but it is only lately that the laws of natural mimicry—*i.e.*, the gestures, attitudes, and movements, by which men and animals express their feelings—have been analysed. Bacon had already pointed out the advantage of a study of the form of expression. For, he says, the lineaments of the body disclose the disposition and inclination of the mind in general, but the motions of the countenance do not only so, but do further disclose the present humour and state of the mind or will. Fix the countenance in the pattern of a particular emotion—in a look of anger,

wonder, scorn—and the emotion whose appearance is thus indicated will not fail to be aroused. Of course there are all the higher intellectual operations, which do not admit of demonstration by experiment, not having any outward physical signs ; but even they are bound by laws and depend on the conditions of certain parts of the brain, of which the majority of physiologists are still ignorant, the phrenological theory not being recognised by them.

The relation of size of brain to mental power is a constant fact in the animal kingdom. The difference of size of brain is so great as to affect the shape of the skull, so that craniologists —like Prof. Flower, the Director of the Natural History Museum—can determine, from an examination of the brain-case only, to what species its owner belonged ; or, in case of a human skull, from what race, or nation, it came. Even male and female skulls are distinguished. If, then, the skull-formation and character vary in accordance, there must be a division of functions in the brain. Gall noticed that the higher the animal, the more progressive will be the cerebral hemispheres. The convolutions will increase in size, number, and complexity ; they owe their origin to the unequal growth of some parts of the cortex. Surely this fact of comparative anatomy must have a purpose. The increase of a distinct part of the brain must be followed by a correspondingly larger manifestation of some faculty, just as in osmotic animals increased olfactory bulbs and tracts go together with a superior sense of smell.

Observe the successive development of the mind in infants. It goes in harmony with the successive development of the various parts of the brain. The brain-case first assumes a roundness compared with the square appearance of later periods. It is also devoid of those ups and downs, protuberances and depressions, which do not immediately depend on the fat underlying the skin, but are due to the shape of the bone. As to the mental development, it is nothing new that the child commences to observe the existence of objects, without distinguishing many. Later on the child learns to distinguish the quality of objects, while yet it has no idea of distance, size, and weight. In the same manner the language progresses. At first sounds are repeated like papa, puff-puff, &c., and only after long training the child can be brought to understand the expressions of abstract ideas.

It is with the senses whose nature we know most perfectly that we are best enabled to demonstrate brain centres—*i.e.*, different parts of the brain having different functions. Scientists have come to see at last that musical genius is not

dependent on a highly organised auditory apparatus in the first instance, but on a greatly developed brain-centre. The present-day physiologist can only argue with the phrenologist as to the exact location of a brain-centre—the principle he has already recognised. He knows now, that to distinguish between the shades of colour depends primarily on the brain-centre, though it took him almost a century to confirm Gall's observation, that a man may have perfect sight, and yet be colour-blind.

If there were no special centres, how could we explain the transmission of peculiarities of character from parent to child? Peculiarities of character are no more than modes of faculties, and they could not be transmitted unless we had also a peculiarity of structure in the organ. Instinct is innate; it is anterior to all experience. Were it independent of an organ, of a nerve-centre, how should we explain its transmission? Man has to thank his parents not only for the fortunes they bequeath him, but also for his organisation. True, his organisation wants training. He cannot make use of it immediately after birth as animals can. Some men inherit such a defective organisation that they never acquire a proper reasoning power. Not the best training imaginable will make a Socrates of an average costermonger, though the latter, compared with his own surroundings, may appear intellectual. This is the great argument against equality. Socialism, as meaning the improvement of the welfare of the people, should have our sincerest consideration; but in its perverted practice, as meaning the doctrine of equality, we must reject it. Man is born with certain predispositions, and whatever his education or experience may be they will not alter them, though they may modify them. The question to-day is only: What are the fundamental dispositions? Scientists have rejected the phrenological analysis, but they do not agree among themselves either. No harmony of opinion exists as yet whether memory, judgment, will, or attention are faculties, or as to what are modes of activity, elementary and associated actions.

Genius is almost in every instance partial, and limited to the exaltation of a few faculties, which it could not be were the organ of mind single. Besides, genius most frequently appears at an early age, and no one will deny that it is a gift of nature. Genius owes his existence to the exaltation of some particular sense or intellectual faculty. In other respects the possessor is an ordinary mortal, especially when he is free from inspiration. Whereas talent is conscious of its powers, and knows "how" and "why" it arrived at certain conclusions.

Genius neither knows "how" nor "why." The former discovers and reproduces ; the latter invents and creates. The one has its definite aims ; the other has none. Talent reasons logically : so does genius—but ordinary people cannot always see the logic ; they cannot always perceive the link that connects the works of the genius with previous productions. The works of genius are therefore seldom well received by their own generation, and often not understood even by the next. Take Gall for example.

Men with an inherited tendency to music, poetry, or painting advance in their line with a mathematical precision. Of course, surrounding conditions have an influence, but they do not explain the origin of genius. No great poet has ever explained the process by which he made his poems. Some time ago some one asked the great French dramatists how they accomplished their compositions, but all the answers were vague and uncertain, and more amusing than instructive. Most of them said that to write a lasting drama genius was required, and those who did not say so showed by the description of their proceedings that they were possessed of it. Thus Eugène Labiche related that when he had no idea he bit his finger-nails and invoked Providence. When he had an idea he still invoked Providence, but with less fervour, because he thought he could get on alone. This was very ungrateful, but exceedingly human. In one respect the interrogation proved instructive. It showed that authors write according to their temperaments : and to write a merry piece good health is required. In other words, authors write according to their organisation ; as the state of their organisation, so will be their work.

Why should genius be so closely allied to madness ? Why does a change of brain cause a change of character ? No doubt because the impulses which form the elements of character depend on certain nerve-centres. The power of manifestation of the faculties varies with every change in the state of the material organs, and we see faculties constantly disturbed by injuries to the brain. Thus we can account for an insane illusion which is limited. Its cause lies in a diseased centre of ideation. Many of the acts of the insane are no more than the convulsive expression of disordered nerve-centres.

No one will to-day deny that we are born with certain pre-dispositions to our future character. No one will assert that all men come into the world alike. A little observation shows us that some men have a decided capacity for certain pursuits apart from all training. Unfortunately, the bad as well as the good dispositions can be transmitted from parent to child, and

as the true artist or poet, so the true criminal is born. We find in criminals the degree of controlling power deficient, as if the faculties had lost their equilibrium. But if the fundamental faculties of the mind did not require separate physiological organs, we should not find the will power limited.

I see nothing repulsive in the idea that the faculties should be dependent on nerve-centres. Only such men could object to the idea who imagine that a centre gives an impulse and necessitates an action. But nothing of the kind has been as yet demonstrated. If a man can inherit weak or strong lungs, little or powerful limbs, why should the brain be made an exception? Everybody brings with him into the world certain tendencies and characteristics, derived from his parents and ancestors, and thus his life is, to a certain extent, pre-determined. No system or theory of the mind could be more than a speculation, as long as mind was thought to be a substance independent of matter. Recent researches prove, however, not only the alliance between mind and body, but also the fact that nerve-centres are the condition for the manifestation of thought; that the brain, in consequence, has a plurality of functions, and that this leading principle of phrenology is accurate.

BERNARD HOLLANDER.

TREATMENT BY SUGGESTION.

Now that hypnotism is satirised in the comic papers, and gravely discussed in the columns of the daily Press, it is evident that a conflict has commenced which will either end in its establishment as a science, or extinguish its pretensions altogether. It is upwards of a century since the art is popularly supposed to have made its entry into the world. Unfortunately, it was ill-omened in birth, and handicapped in baptism. At various times it has assumed *aliases* so incongruous as to discredit its claims to consideration. Not pausing to ask "What's in a name?" it has sought to discard the name of its originator, though it is difficult to conceive why "Mesmerism" should be an opprobrious title, and, for example, "Wesleyanism" an honoured one; and has masqueraded as animal magnetism, electro-biology, and now, it is to be hoped, finally, as hypnotism. Its discovery is usually attributed to Mesmer, a Viennese physician, who, after having practised it for some time in Germany, left his native land, almost in despair, and settled in France. It may be said, at once, that

Mesmer, arch-charlatan as he is sometimes called, was not warranted in claiming for himself the honour of his doctrine. For more than a century previously its mysteries had been an open book to Paracelsus, Santanelli, Maxwell, and, above all, the great Van Helmont. It is usually assumed, why I know not, that hypnotism was condemned by the French Commission. So far is this from the truth that its value was distinctly recognised by such bitter foes as Bailly. What the Commission condemned was Mesmer's theory of a universal fluid. The investigators acknowledged the facts, but referred them to the effects of imagination. Whether they were correct or not in their conclusions need not be asked for the moment. Hypnotism is far older than Mesmer would have had the world believe ; and careful inquirers will find that its

INCEPTION

lies far back, veiled amid the mists of antiquity. In all probability this subtle power, which has aroused such violent antipathies, was known to and used by the Egyptians. "This people," says Diodorus, claims for its goddess Isis "the invention of numerous healthful medicines and cures through sleep. Standing by the sick in sleep she relieved their disorders, and those who attended to her were cured beyond all expectation." The art of healing by friction is alluded to by Prosper Alpinus, who wrote a work on Egyptian medicine. The methods are said by him to be different from ordinary frictions—the imposition of the hand, the action of turning the finger round and round, and breathing. Warburton, in "The Crescent and the Cross," says, "Magnetism appears to have been well understood by the Egyptian hierarchy. In a chamber whose hieroglyphics are devoted to medical subjects, we find a priest in the act of mesmerising."

It is certain that the Greeks were acquainted therewith. Then medicine was a sacred art, and the initiated could not reveal it to the vulgar under pain of sacrilege. Solon says, "Often from trifling pain great suffering arises, not to be allayed by the administration of soothing medicines, but, touching the sufferer with the hands, you immediately restore him to health." The passage of Æschylus, in "Prometheus Vinctus," is plain. The hero foretells to Io that she will find relief at Canopus, and says : "There Zeus will render you sane ; stroking you with gentle hand, and simply touching you." Celsus, the Roman physician, claims that Asclepiades, the Father of Physic, practised light frictions as a means of inducing sleep in phrenzy, and says that "by too much friction there was danger of inducing lethargy."

The history of hypnotism, in our own times, would fill a volume. The wild theories of Mesmer and the extravagances of the Marquis de Puysegur discredited hypnotism, and have retarded its progress, preventing the world from deriving benefit from its practice. Even the countenance of an archbishop has failed to commend it. Nor is this surprising. This subtle nervous force has been strangely misunderstood. Among other causes which have operated prejudicially against hypnotism are the inconstancy of the magnetic phenomena when it is required to produce them before witnesses, the lack of perseverance in men who wish to convince themselves by personal experiment, and the fact that the phenomena rest on unknown principles, and so are rejected as absurd. They are so extraordinary in their nature, so different from every received idea, that those who believe them are regarded as fools, and those who perform them as rogues and impostors.

Of all professions that of medicine is the most conservative. Although Elliotson was a curative hypnotist of the first water, Ashburner a learned member of the faculty, and Esdaile one who, in his application of the principle, approached the marvellous, the great company of doctors turned stubborn, and refused to believe. Owing to this *non possumus* attitude, the advocates of the system were made martyrs. Where the profession was forty years ago, it is to-day: blinded by prejudice, it presents a phalanx of opposition to a system which it should have been the first to adopt. In consequence of this hostile attitude, hypnotism has been relegated to the showman.

For more than a generation one of the most mysterious forces known to the psychologist has been trailed up and down the country, and maltreated by men who have mastered the methods of production only. These persons, in a jargon which is neither Queen's English nor Dean's English, have held forth upon it to gaping crowds, like Jack Puddings at a country fair. To what bad uses may the noblest powers be put—"Imperial Cæsar, dead, and turned to clay, May stop a hole, and keep the wind away." This singular emanation has been compelled to minister to the delectation of fools. It would have been more in accordance with the dictates of common-sense to set a chained eagle to frighten sparrows. It were less disgraceful to see blind Belisarius begging for an obulus, or Bucephalus tugging at a chain harrow. All these would be common-place compared with the spectacle of Odic force furnishing *Punch's* hypnotic dinner, or setting in motion the stock-in-trade buffoonery of the travelling mesmerist.

While thousands have gone to stare and wonder, and

doctors have cried in strident tones, "Imposture," none appear to have asked what are

THE MYSTERIES

which underlie it all. How is it that a man, by setting persons to gaze upon a given object, or by passes, can throw them into a trance and render them docile to his will. How is it that those who are skilled in this wondrous art are able, at their pleasure, to make others believe that they are artisans, sailors, doctors, or lawyers? That they are hot, cold, hungry, full, abstainers, or drunkards? That they can take from them all sense of pain, or cause them to writhe with agony? That they can inflict blindness, deafness, catalepsy? In a word, can play upon them as an organist on an instrument of music? Singular to relate, these marvels have gone far to ruin the art. Usually men have a liking for the uncanny, a sneaking kindness for the supernatural. But from the first hypnotism, though white, or sacred, magic, has been under a cloud; and so a divinely-bestowed, universally diffused influence has been tacitly tabooed.

Sometimes a hope is indulged that common-sense will so far prevail, and justice assert the claims of right, as to lead thoughtful men to advocate a full examination into the far-reaching relations of the subject. But, as time rolls on, one sees no sign of such fairness. The world is occupied with thoughts of strife and plans of faction, and men of science seek only the bubble reputation. Little is thought of those nobler considerations which should lead men to the more important thoughts connected with the only source of permanent fame. And all this time men are ignoring the very existence of one of the most valuable and important

CURATIVE AGENTS

the world possesses, one which, wisely employed, would almost banish the ghastly legion of nervous disorders now unhappily prevalent. Every medicine operating on the liver organism exerts its influence either directly or indirectly upon the nervous system. It is not essential to the treatment that the operator should be able to demonstrate in what manner this communication with the different parts of the body is effected by the nerves. It is enough for us to know that those substances which are termed vital agents produce their effects by influencing the nervous energy and the nervous system generally. The influence of what, for want of a better name, I may here term the hypnotic force, is exercised chiefly on the nervous and circulatory systems, but, as the

functional state of both systems is affected in all diseases, it follows that, in almost all possible cases, this "force" must impress some modification upon the system. The question at issue is not whether we comprehend this, but whether the process conveys a curative force—whether the influence of the will is a cerebral force and influence, reaching and acting upon the muscles through the interposition of the spinal cord.

I could quote case after case in which I have found this force invaluable as a healing agent, not in nervous disorders only, but in almost every form of disease. But this would savour of boasting. Speaking generally, however, I find that this process conveys the stimulus directly to the part where it is required, and to no other; while it powerfully stimulates the brain force, it also directs and regulates its flow along the course of the nervous system to suit the demands of the case. Then, when the disease is checked, the patient's *vis medicatrix naturæ*, instead of being found exhausted, is found to be enhanced. The process which mastered the malady has also increased the vital energy, and rendered the constitution more fitted to perform its general health work.

PROSPECTS.

The subject is as yet comparatively in its infancy. Thus it is unwise for any writer either to dogmatise, or even to try to predict, the course of treatment which may be adopted in the future. At present there seems a disposition to give "Treatment by Suggestion" a fair trial. This, however, can never become general, unless some such method as that which has been adopted by Dr. de Luys, which has irreverently been termed the "Lark Mirror," is found competent to accomplish all that is claimed for it. The statement that all persons can be brought under its influence is already questioned. The same objections would, of course, be fatal to its claims as an anæsthetic. If only some 10 per cent. can be brought under its influences it can never be rendered available for such a purpose. At first sight these objections would appear to be so strong as to preclude its employment for therapeutic purposes; and there is no doubt that many medical men, who might otherwise have been disposed to give it a favourable trial have been deterred through the inconstancy of the phenomena. But is the "mesmeric sleep" however caused, necessary? I believe not. In the course of a somewhat lengthy and varied experience, I have found that every disease which can be successfully treated through the "sleep" can be equally satisfactorily dealt with without it by a peculiar application of the principle directly to the seat of the malady. If this should

be found capable of general application, the great secret will be solved ; and the future of hypnotism assured. That this may be the happy issue of the present investigation is devoutly to be hoped for, in the interests of suffering humanity.

PHRENOLOGICAL ASPECT OF MODERN PHYSIOLOGICAL RESEARCH.

(Continued.)

SECRETIVENESS.

THIS organ is on the superior temporo-sphenoidal convolution, and expresses itself, when stimulated, by "pricking of the opposite ear, head and eyes turn to the opposite side, pupils dilate widely." Respecting the stimulation of this area (13) in jackals, Dr. Ferrier records that "the head was directed to the opposite side, and with it the ear was pricked up, but the eyes were not observed." Dr. Ferrier finds similar results from the stimulation of 13 and 14. So far as monkeys and dogs can express the attention caused by secretiveness, they do it by "pricking the ear." The cat has this part of the head extremely large, and what animal is more sly ?

DESTRUCTIVENESS.

The lower part of the centre, marked 14, is on the phrenological organ of destructiveness. (See Figs. 6 and 8, and compare with 6 in Fig. 12.) The posterior centre of those marked 14 is near to that of 13 (Combativeness). Dr. Ferrier says that this part (14), when stimulated, causes the animal to "spring forward," and "lash the tail." Jackals "bounded forward as if suddenly startled" ("F.B.", page 256).

It is not easy to differentiate or compare the centres 13 and 14 as Dr. Ferrier marks *ten* of them, but taking the middle of the three anterior centres of 13, the three posterior centres of 13, and the upper and lower points of 14, as given above, it cannot be denied, so far as monkey manifestations can support phrenology, and admitting that Dr. Ferrier's experiments are reliable so far as they go, that such support is given in a remarkable manner.

ALIMENTIVENESS.

Respecting the irritation of the middle temporo-sphenoidal convolution, Dr. Ferrier found it generally to be without reaction, "except towards the lower extremity (15), where, in several instances, movements of the tongue, cheek pouches, and jaws were induced like those which are characteristic of tasting" ("Functions of the Brain," page 244).

I have already pointed out the similarity between acquisi-

tiveness and alimentiveness in monkeys, bears, &c., and I may observe that Broca supposes there are no less than three olfactory centres in each hemisphere—all more or less probably connected with the gustatory centre ("F.B.", page 320).

Again, on page 321 of "F.B." he says: "It was noted in connection with the electrical irritation of the lower extremity of the temporo-sphenoidal convolutions in the monkey, and of the same region of the brain of the cat, phenomena which might be regarded as indications of excitation of gustatory sensation. This interpretation receives support from the above results of destructive lesions; and we have, therefore, reasonable grounds for concluding that the gustatory centres are situated at the lower extremity of the temporo-sphenoidal lobes in close relation to those of smell."

So long ago as the publication of Combe's "System of Phrenology," this fact was known to the phrenological world, and no doubt this knowledge has helped modern scientists to discover it. If you turn to Combe's "System" (the 1830 edition), you will find particulars of the discovery of alimentiveness—concurrently, but independently of each other—by three different gentlemen—Mr. Combe himself, Dr. Hoppe, of Copenhagen, and Dr. Crook, of London.

They located it exactly where Dr. Ferrier "discovered" it many years afterwards. Dr. Hoppe said it "is in the fossæ zygomatica, exactly under the organ of acquisitiveness, and before that of destructiveness." Dr. Hoppe found the organ of gustativeness in the zygomatic fossæ, and after he was dead Dr. Ferrier discovered it in the zygomatic fossæ. Nevertheless, Dr. Ferrier says the localisations of phrenologists are fanciful. He marks it 15—see Fig. 6.

Again, Dr. Brown, in his work on "Phrenology," published before Dr. Ferrier "discovered" the position of gustativeness in the lower sphenoidal convolution, wrote that after careful examination into the question himself, it was his "sincere conviction that the convolutions which form part of the middle lobe of the brain, lying immediately in front of destructiveness, constitute the organ which has been called alimentiveness, and also gustativeness, by Combe and other writers." Dr. Ferrier gives a full account of a man who swallowed a glass of vinegar, thinking it to be brandy. He could neither taste nor smell. Dr. Ferrier galvanized him with "the constant current directed transversely through the head in the zygomatic fossæ," &c. At the end of a week's treatment he began to smell such things as musk, tobacco, &c. At the end of a year (in 1878) he was able to "enjoy perfect taste, and his powers of smell, which were never very

acute, he thinks as good as ever" ("Cerebral Diseases," pp. 138-9).

LANGUAGE.

We will now look into the modern "discovery" of the organ of language. I will quote from Combe's "System" again: "The external signs of the organ of language are 'produced by convolutions of the brain situated in the posterior and transverse part of the upper orbital plate pressing the latter, and with it the eyes more or less forward, downward, or outward, according to the size of the convolution.'" I append reduced copies of plates first published by Spurzheim (Nos. 9 and 11), in which these

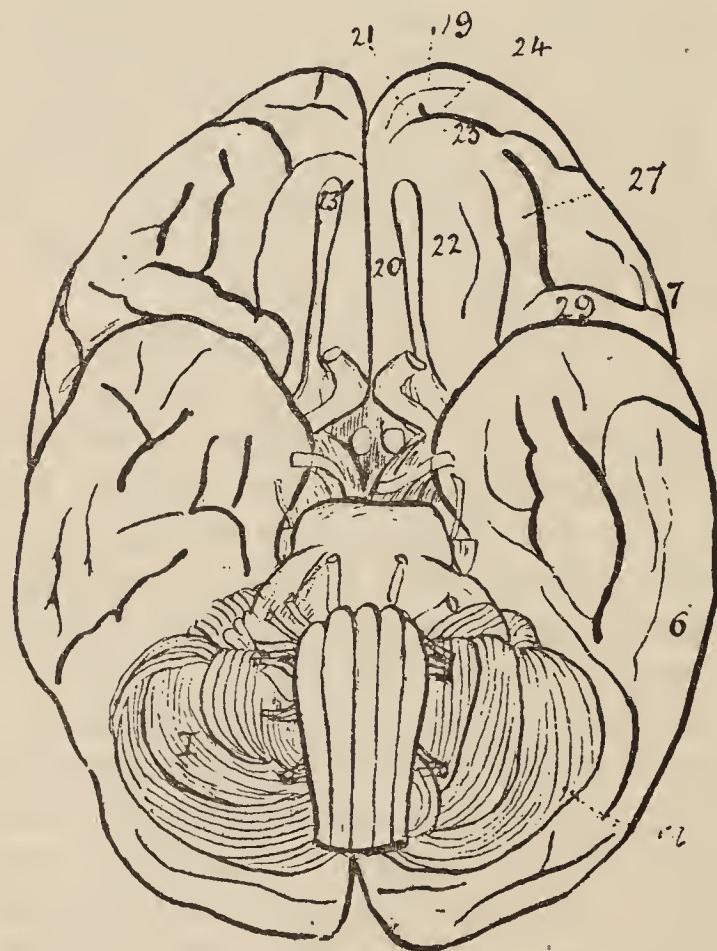


FIG. 9.

convolutions are marked and numbered as the seat of the organ of language; and on page 453 of his "Physiognomical System," published in 1815, appears the following statement: "The organ of language accordingly seems to be placed in the midst of the knowing faculties, and occupies a transverse situation." The diagrams and the book were published before the nativity of Dr. Ferrier. Dr. Brown confirms

the discoveries of Dr. Gall respecting this organ—the first organ Dr. Gall discovered. Before the birth of the present “scientific” era, Dr. Brown wrote : “Many years ago, there was brought into the infirmary at Edinburgh, a man who was suffering from some febrile affection. He was under the able and excellent Dr. Wm. Pulteney Alison. The patient seemed to understand what was said to him, but his replies were quite unintelligible, because he made use of words which had a meaning quite different from what he was apparently anxious to convey. The words denoted something which had no connection with what he intended to say. This he some-

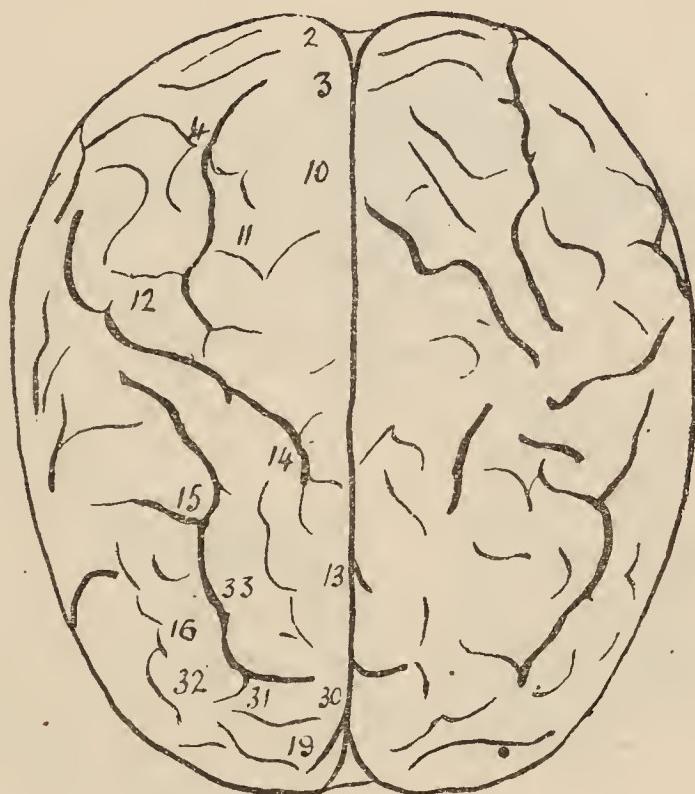


FIG. 10.

times made known by gestures ; and then his wants would be guessed at. This would imply that he could understand the proper meaning of words when used by another, though he could not recall them himself. This poor man died. His body was opened and closely examined, and its condition commented on with his accustomed care and ability by Dr. Alison at the next clinical lecture. But what he particularly called our attention to was the want of power in the patient to use the proper words to express his thoughts, as well as the fact that there appeared not the slightest lesion or injury of the eye where Dr. Gall placed the organ of language. And he therefore concluded that the case was unfavourable to the

doctrine maintained by Gall. Now here is a great physician and physiologist, and a most candid and most estimable man, making an important assertion—important because it was certain to create in the minds of scientific and accomplished young men a prejudice which any careful student of Gall's doctrine could in a moment contravene. And when he declared as a proof that there was purulent matter found at the side of the *sella turcica* which extended transversely at the posterior inferior part of the anterior lobe of the brain, he was not in the least aware that he was giving an accurate description of the organ of language in a state of incurable disorganization, while all the other convolutions of the frontal

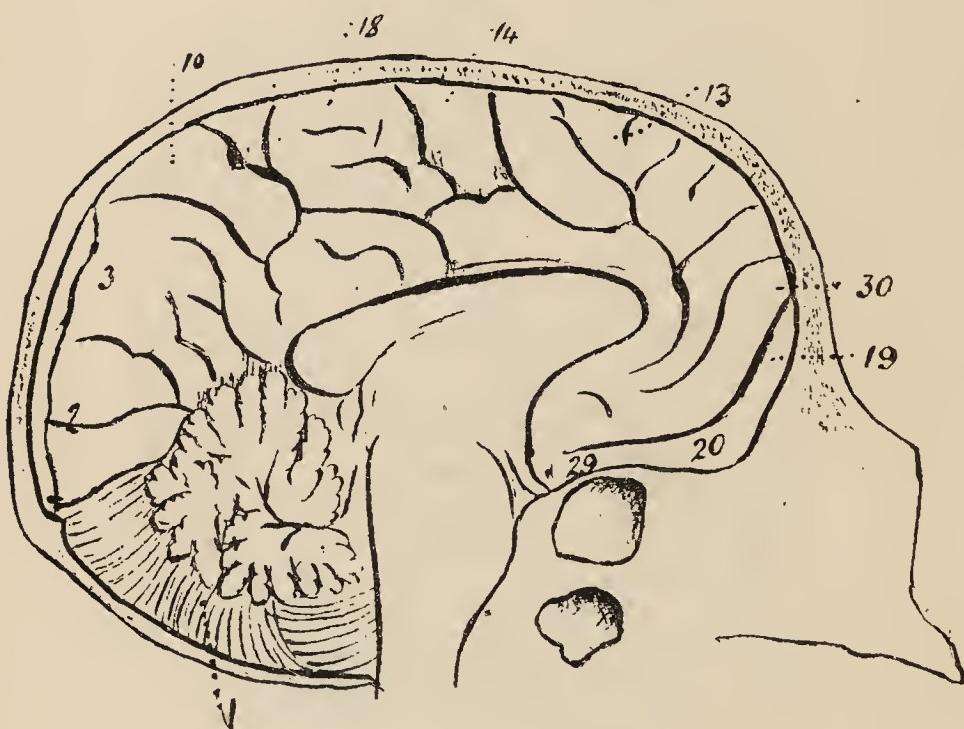


FIG. II.

lobe were in a healthy state. But as the size of the organ can be measured by the position of the eye in the bony orbit, the good doctor was under an erroneous impression as to its true position in the brain."

Dr. Brown justly adds : "But when we witness a failure of the faculty of language occurring when the convolutions of the anterior lobes are still in a healthy condition while that one which runs transversely behind them, and moreover in contact with them all, is afforded as palpable a proof as pathology can yield of the truth of the phrenological doctrine respecting the exact position of the organ of language."

You will be anxious to know what Dr. Ferrier has to say on this point. On page 444 of "F.B., " he writes : "The

inability to speak is not due to paralysis of the muscles of articulation, for these are set in motion and employed for purposes of mastication and deglutition by the aphasic individual. It is only when the centres of articulation are destroyed on both sides that complete paralysis of the articulatory apparatus occurs as well as aphasia. The cause of this affection was shown by Broca—and his observations have been confirmed by thousands of other cases—to be associated with disease in the region of the posterior extremity of the third left frontal convolution."

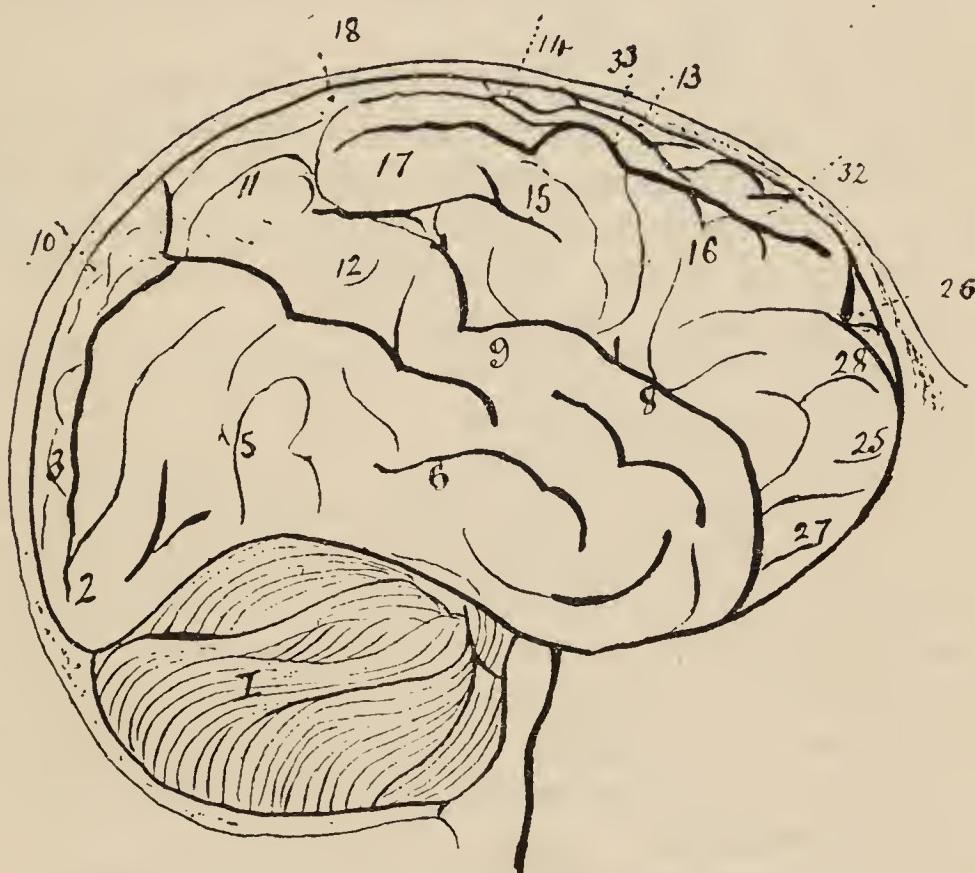


FIG. 12.

Again, on page 93 of "Cerebral Diseases," he gives a case of "aphasia from fracture of the left side of the skull by the kick of a horse. After death, an abscess of the size of a nut was found on the medullary substance of the third left frontal convolution;" and another case, that of a healthy man who fell from horseback and was found, by a physician, who came up, to be aphasic, and without any signs of paralysis. "A small wound with depressed fracture of the left side of the skull was found: and corresponding to this was a cerebral softening of the third left frontal, the second left frontal, and the island of Reil," and to clinch the fact that this phreno-

logical discovery was made nearly a hundred years before Ferrier wrote a line on the subject, he challenges any one "to bring forward a case in which with bilateral lesion of this centre no aphasia occurred." Dr. Ferrier gives several other cases, and quotes the case of a boy from the *British Medical Journal* of July 28th, 1877 (page 103). I will spare you from listening to the case, it being similar to the others as to the loss of speech and the diseased "hinder end of the middle and inferior frontal convolutions."

How Dr. Gall would rub his eyes if he could, at the close of the nineteenth century, return to this mundane existence, and learn that the discoveries he made in the eighteenth century—his "fanciful" discoveries—are being served up as modern scientific discoveries.*

On page 445 of "F.B." Dr. Ferrier complains of medical men having taken some other convolution for the "left third frontal" when they have found lesions "without affection of speech." The power of this organ of language depends, like the power of every other organ, on its relative and absolute size, its health and education.

It is a remarkable fact that the "language" convolution is not found in the lower animals.

Truth is making its way under serious difficulties, for Dr. Ferrier himself admits what every one versed in chemical physics is aware, that the galvanic current for physiological purposes is less trustworthy than many of you could imagine, owing, as he rightly says, to "electrolytic decomposition of the brain substance at the point of contact of the electrodes," and "conduction to neighbouring centres by the fluid which is apt to collect on the surface of the part of the brain subject to experiment."

Respecting the occipital lobes, Dr. Ferrier says he "never obtained any re-actions on stimulation," though "in one case

* The diagrams 10 and 12 are inserted for comparison with Dr. Ferrier's centres. They, like Figs. 9 and 11, are reductions from Spurzheim's plates. The following are the organs, &c., indicated by the numbers on the four diagrams :—

1 Amativeness.	12 Cautiousness.	23 Colour.
2 Philoprogenitiveness.	13 Benevolence.	24 Space.
3 Inhabitiveness.	14 Veneration.	25 Order.
4 Adhesiveness.	15 Hope.	26 Time.
5 Combativeness.	16 Ideality.	27 Number.
6 Destructiveness.	17 Conscientiousness.	28 Tune.
7 Constructiveness.	18 Firmness.	29 Language.
8 Covetiveness.	19 Individuality.	30 Comparison.
9 Secretiveness.	20 Form.	31 Causality.
10 Self-love.	21 Size.	32 Wit.
11 Approbation.	22 Weight.	33 Imitation.

the insinuation of the electrodes underneath the inferior occipital convolution" caused uneasy movements of the hind legs and tail, while the animals (which were cows and sheep) looked to the opposite hind leg, and occasionally uttered a plaintive cry, as if in pain or annoyance."

The lower occipital convolutions in man are stated by phrenologists to be the seat of the propensity of love of one's offspring. How remarkable it is that the little that Dr. Ferrier could get by stimulation of this part was as confirmatory of our position as the cow and sheep could give us. Cows and sheep solicitous concerning their offspring, he says, when this part of the brain is stimulated, "utter a plaintive cry, wag their tails, and look behind."

We will now look at the frontal lobes. Dr. Ferrier says: "Stimulation of the frontal lobes in advance of 12, as well as the orbital lobule, was without obvious effect." He also says that Horsley, like himself, "could get no excitation of the pre-frontal region." I am now going to shew that, apparently unknown to himself, he has placed on record facts about these regions (in man as well as in monkeys) which, to my mind, have the greatest weight in confirming the doctrines taught by phrenology, and, just as Dr. Davey, before his Bath and Bristol *confreres*, on Nov. 10, 1875 (see page 125, etc., of *Journal of Psychological Medicine*, 1876), said he wished to "convince them that the localisation of the several functions of the brain in man, as discovered by Gall, has already been confirmed by a series of experiments of a most decided character, the stimulation of the organs of combativeness, constructiveness, acquisitiveness, secretiveness, self-esteem, &c.," so I wish to convince you that Dr. Ferrier has not proved one faculty of our phrenological system to be fancifully or inaccurately placed, but in every particular, so far as they are established, his "centres" have helped to prove their truthfulness.

Phrenology teaches that the reasoning and observing faculties are located in the anterior brain, which Dr. Ferrier cannot excite—many of them behind the orbital ridge—and which fact Dr. Wilson does not believe. He says: "The ridge of the brow, instead of representing delicate mental attributes, only formed the outer wall of air cavities, which communicated with the nose." He would have been quite as correct had he said the ridge is the protector of delicate blood-vessels which communicate with the heart, and more to the point had he said they are protectors of the brain inside, and the eyeball beneath. This fact as to a communication with the nose was not to the point, and could not affect the question any more

than his remark that a "whirlpool of blood" was the phrenological organ of philoprogenitiveness. There are blood-vessels even in the bone; but if Dr. Wilson meant his hearers to believe that the cortex of the occipital lobe did not lie where we place that organ, he was certainly trying to teach them that which is not true. The tentorium, the transverse or lower part of the dura-mater separating the hemispheres from the cerebellum, and containing the channels or sinuses for some of the larger blood-vessels, is well-known to the phrenologist. He knows the exact position of this fold of the dura-mater, and its markings on the skull. And had not this marking been well-known, the tentorium is, compared with the occipital organ of philoprogenitiveness, but of small dimensions. Don't think that I am reading from a book of phrenology when I am reading the following case from Dr. Ferrier's "Cerebral Diseases." Instead of disproving phrenology, he appears to do his best to prove it. Speaking of the pre-frontal regions in men, he says: "There are multitudes of cases on record in which these regions have been the seat of extensive disease on one or both sides, with a like negative result as regards sensation or motion; and recovery has taken place after the most frightful lacerations and loss of substance."

"One of the most remarkable of these is that known as the American Crowbar Case; and as this case, in addition to its importance otherwise, has lately been appealed to by Dr. Dupuy, as showing that lesions of the so-called motor region may occur without paralysis, I have thought it necessary to obtain exact particulars in reference to it. And I am enabled, by the kindness of my friend Professor Bowditch, of Harvard, to place before you photographic delineations of the skull in this case. The skull is preserved in the Medical Museum of Harvard University. There is no doubt about its authenticity. An account of the case was published by Dr. Bigelow, and another and later, after the man's death, by Dr. Harlow, under whose care he came immediately after the accident, and through whose interest in the man till death we owe the preservation of this unique specimen" (see Fig. 13).

The subject of the lesion was a young man (Phineas P. Gage), aged 25. While he was engaged in tamping a blasting charge in a rock with a pointed iron bar, 3ft. 7in. in length, $1\frac{1}{4}$ in. in diameter, and weighing $13\frac{1}{4}$ lbs., the charge suddenly exploded. The iron bar, propelled with its pointed end first, entered at the left angle of the patient's jaw and passed clean through the head near the saggital suture in the frontal region, and was picked up at some distance covered with "blood and

brains." The patient was for the moment stunned, but within an hour after the accident, he was able to walk up a long flight of stairs, and give the surgeon an intelligible account of the injury he had sustained. His life was naturally for a long time despaired of; but he ultimately recovered and lived $12\frac{1}{2}$ years afterwards. He then died (of epileptic convulsions) at a distance from medical supervision, and no post-mortem examination of the brain was made; but through the exertions of Dr. Harlow the skull was exhumed and preserved. Upon this, the exact seat of the lesion can be determined. Dr. Bigelow, who examined Gage two years after the accident, states that "a piece of the cranium about the size of the palm of the hand, its posterior border lying near

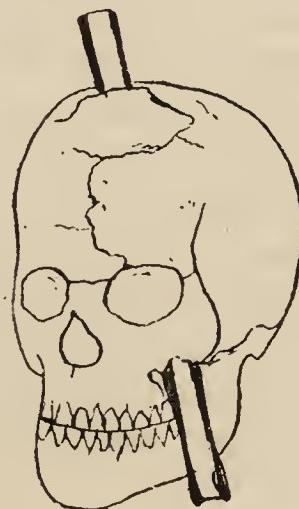


FIG. 13

the coronal suture, its anterior edge low on the forehead, and raised upon the latter as a hinge to allow the egress of the bar, still remains raised and prominent."

You will observe that the bar passed clean through the frontal lobe, and by the diagram and from what the doctors say, through the moral and religious organs—faith, veneration, and benevolence. The intellectual and religious organs were therefore either entirely destroyed or very considerably injured. We have already seen that phrenology teaches that when any part of the brain has the advantage in size or healthy action, that part holds sovereign sway over the other parts. If you will compare the heads of Dr. Palmer, the Rugeley poisoner, with that of Cardinal Manning, Bishop Selwyn, Thomas Binney, Professor Owen, or Michael Angelo, you will see what I mean. Or compare the imbeciles called Aztecs in Barnum's show, whose heads have a circumference

of $15\frac{1}{4}$ and $14\frac{1}{2}$ inches—about seven inches in circumference less than the average human crania—(I have measured them myself) with such heads as those I have named, and you will have excellent examples confirming phrenological teaching.

We will return to Gage. We observed that his frontal lobe and coronal regions were materially injured—the posterior region overbalanced the frontal and superior regions; there was a serious loss of the power of “co-ordination” and “equilibration” between the groups of faculties; and this fact is most graphically illustrated by Dr. Ferrier, who writes, “C. D.” p. 30:—“But hear what Dr. Harlow says of his mental condition: ‘His contractors, who regarded him as the most efficient and capable foreman in their employ previous to his injury, considered the change in his mind so marked that they could not give him his place again. The equilibrium or balance, so to speak, between his intellectual faculties and animal propensities seems to have been destroyed. He is fitful, irreverent, indulging at times in the grossest profanity (which was not previously his custom), manifesting but little deference for his fellows, impatient of restraint or advice when it conflicts with his desires; at times pertinaciously obstinate, yet capricious, vacillating, devising many plans of future operation which are no sooner arranged than they are abandoned in turn for others appearing more feasible. A child in his intellectual capacity and manifestations, he has the animal passions of a strong man.’”

“Previous to his injury, though untrained in the schools, he possessed a well-balanced mind, and was looked upon by those who knew him as a shrewd, smart business man, very energetic and persistent in executing all his plans of operation. In this regard, his mind was radically changed, so decidedly that his friends and acquaintances said he was no longer Gage!” Such is Ferrier’s description. You have observed that Gage’s religious and reasoning organs were almost, if not entirely, obliterated: he became, therefore, addicted to the “grossest profanity,” “quite a child in his intellectual capacity and manifestations,” and possessed “the animal passions of a strong man.” No wonder the young man who drew the diagram for me, when reading the account in Ferrier’s book, thought it a work on phrenology! for it is impossible to conceive a stronger confirmation, than this case exhibits, in the doctrines that Dr. Wilson so ignorantly described as “phrenological frauds.”

Dr. Ferrier says such cases are “very numerous.” Among others he records a case from Lepine (“C.D.” p. 34), of “an abscess of the right frontal lobe,” that produced a state of

"hebetude," and the case of "atrophy of the frontal convolutions in both hemispheres." The patient was in a state of complete dementia, "picking up what came in his way, mute and quite oblivious of all the wants of nature, and requiring to be tended like a child." "The lesion in this case was purely cortical and depended on partial obliteration of the arterial supply." He also records a case where an iron hook "smashed and carried away a considerable portion of the frontal bone, exposing and injuring the brain as far back as the coronal suture." In this case "every action he performed left the impression on the mind of the observer that it was purely automatic or machine-like."

On page 35 of "Cerebral Diseases" Dr. Ferrier quotes the case of "a girl who remained in a complete state of idiocy from birth. The pre-frontal regions or anterior, two-thirds of the frontal lobes were completely wanting." "The frequent association of idiocy with such defect of the frontal lobes is (he says) a generally recognised fact." He admits also that diseases of the pre-frontal lobes cannot be definitely specified "by experimental physiology, for destruction by the cautery of the antero-frontal lobes (he says) is not followed by definite physiological results," for the "animals retain their appetites and instincts." This simply proves the phrenological doctrine. The perceiving faculties, order, number, size, reason, etc., are located here. And as animals understand little or nothing of the functions of these organs—intellect as such—reason as such—being human attributes—no wonder he failed to get expression of parts and powers that they did not possess.

All his experiments were on the lower animals. They all lend their support to the teachings of phrenology. And all his remarks on lesions of men's brains lend their aid in the same direction. On page 37 of "C.D." Dr. Ferrier says that when the animals have their pre-frontal lobes diseased or largely removed, they "are capable of exhibiting emotional feeling. The sensory faculties, sight, hearing, touch, taste, and smell remain unimpaired. The powers of voluntary motion are retained in their integrity, and there is little to indicate the presence of such an extensive lesion ; and yet, notwithstanding this apparent absence of physiological symptoms, I could perceive a very decided alteration in the animal's character and behaviour, though it is difficult to state in precise terms the nature of the change. The animals operated on were selected on account of their intelligent character. After the operation, though they might seem to one who had not compared their present with their past fairly up to the average of monkey intelligence, they had undergone a con-

siderable psychological alteration. Instead of as before being actively interested in their surroundings, and curiously prying into all that came within the field of their observation, they remained apathetic or dull, or dozed off to sleep, responding only to the sensations or impressions of the moment, or varying their listlessness with restless or purposeless wanderings to and fro. While not actually deprived of intelligence, they had lost to all appearance the faculty of attention and intelligent observation." Dr. Ferrier refers afterwards to Dr. Crichton-Browne on "General Paralysis of the Insane," as illustrating and confirming his experiments on the frontal regions of the brain of monkeys, in the case of "morbid changes" in the "frontal regions" of men.

On nearly every page of Dr. Ferrier's "Functions of the Brain," are to be found teachings confirmatory of phrenological truth—and that in a high degree. Much is said by our opponents respecting "co-ordination" and "equilibration."

I will give you two examples of what a phrenologist sees when he looks for the results of co-ordination and combination of faculties, and of balance and the want of it. A person with large colour and form has a bias towards painting—Rubens is an example. Take away excess of colour, and in place of it endow a person with large weight and you change your man into a sculptor—Canova is an excellent example. Let your man be endowed with both colour and weight large, and equally so, and he becomes a painter and a sculptor—such a man was Michael Angelo. Similar facts could be illustrated in the realms of poetry, architecture, mechanics, metaphysics, morals and religion. The size of the brain, and its quality and its education, give us its absolute power and capacity. It is the relative size of the organs to each other that differentiate the kind of capacity and the character that will express themselves in their lives. The other instance, I referred to, was given in an address on November 10th, 1875, by Professor Moritz Benedict, before the Vienna section of the Medical Association in Lower Austria, and reported in the *Journal of Psychological Medicine*, page 125, 1876. The Professor shewed from the demonstration of five brains of criminals, "that a deficient organization lay at the root of these criminal natures, and, at least, occasioned the deposition of an abnormal and moral constitution," and in these cases, "on the left side, the inter-parietal fissure runs parallel with the fissure of Rolando. Hence the first and even the second parietal lobes are diminished in size." "On the other hand, the first and second temporal lobes corresponding to it are greatly developed." He shows that in such brains the first temporal fissure and the

fissure of Sylvius run vertically and almost parallel to the fissure of Rolando as in apes. This, he specially pointed out to his *confreres* in the case of the brain of a murderer of middle age, who had shot a relative from revenge, with whom he was living at enmity. Here we have a confirmation of phrenology—unknown, I suppose, to the Professor. The parietal lobes, where conscientiousness has been discovered by phrenologists, were remarkably deficient, and those temporal lobes proved to give energy and executive power, and named destructiveness, were “greatly developed.” In fact, Benedict’s address throughout was one that could have been given by any intelligent phrenologist.

In conclusion, let me say that metaphysics without phrenology is chaos : this fact is well illustrated by what the Editor

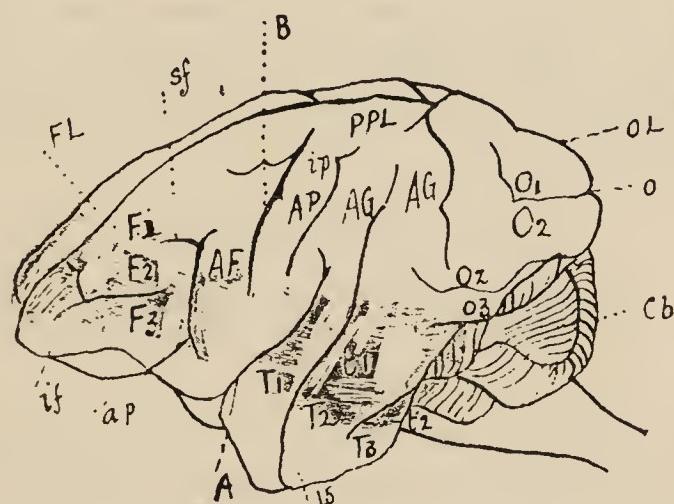


FIG. 14.

of the *Journal of Psychological Medicine* says of the first number of the magazine called *Mind* :—“We cannot congratulate the Editor of *Mind* on the originality or brilliancy of the articles in his magazine. They are a little more than a *rechauffé* of the dangerous dogmas of the modern materialistic school of philosophy which have led admirers to imagine that the use of obscure pedantic phraseology is adding to our knowledge of the operations of the human mind. Here is one specimen of the style in one of the articles on the ‘Theory of Evolution’ :—‘Shall we say that progress consists in increasing complexity of organization, or (to use Mr. Spencer’s more precise phrase) in more and more definite coherent heterogeneity of changes in the living being correspondent to changes in its environment?’ From all we glean from the first number of the Journal it might as well be called *Matter as Mind*.” Such is the criticism of one psychological journal regarding another.

My opinion is, that phrenology is the only key with which to open the door of the mind, and perhaps the most marvellous thing about it is, that it teaches the truth concerning the spiritual element in man, which no other system of philosophy can do. The more its teachings are understood, the better will much scriptural truth be brought into light that now is often misinterpreted or misunderstood. It shows us the folly of attempting to evolve from our own consciousness a system of philosophy without the aid either of revelation or a proper grasp of human nature. Phrenology and revelation "co-ordinated" (studied together and by each other's aid) will assuredly teach men their true place and work in the world—their relationship and duty to each other, and to their God.

Fig. 14 is the diagram of the monkey's brain ; ip is the interparietal fissure which is very short compared with the same furrow ip in Fig. 1 (human), where it curves away almost at right angles to c, the fissure of Rolando. P.P.L. on the organ of conscientiousness is small, as in criminals who have little sense of justice.

A STUDY OF MIND.

IN an article by Mr. H. C. Wood, in *The Century* for May, we find many interesting illustrations of mental unconsciousness, cases which are valuable from a pathological, and hence from a phrenological, standpoint. Though "consciousness is the one supreme fact of the universe, mysterious, inexplicable for all time beyond human understanding," still diseased mentality, or a want of mental power in various ways, is partly—and, in fact, largely—accounted for, and understood by, phrenological research.

Mr. Wood says : "We take a little mass of living matter. We call it protoplasm. We notice that it is tremulous with self-endowed motion. We find it is almost structureless, containing only some little shapeless granules. We analyse it in the chemist's retort, and it is carbon, hydrogen, oxygen, and nitrogen. And now we say we know it ; but how are these elements grouped together, that out of their dead atoms should spring molecules endowed with the greatest power of all powers—the power of knowing ?

"The beginning of a man is a speck of protoplasm, a formless particle. One such little mass is to us indistinguishable from its fellows : each is structureless, yet within each are the records of innumerable generations passed and the poten-

tialities of generations manifold to come. One shall develop into a fool ; another into a man who shall fill the world with the fame of his intellectual greatness, or, mayhap, with noise and blood, and the misery of war ; out of one shall come forth a monster of wickedness, out of another a saviour of mankind."

"To us all of these beginnings are precisely alike. If we cannot, with the crude, blundering tools we call the microscope and the retort, discover any differences in these simple little masses of protoplasm which are yet so different, how can we ever tell the story of the waves of ruin, distress, and change which sweep to and fro over the human brain ? If we cannot fathom the mere speck of germinal protoplasm, how can we ever hope to know the changes of the most complicated nervous protoplasm gone mad ?"

Here is the point which phrenology so clearly helps to explain, as no other subject is able to do, and it is thus that, with the skilled help of the phrenologist, we are able, both in health and disease, to a large extent, to understand the reason for the different natures that are exhibited in the protoplasmic particles which develop such various characteristics. It is no cause for wonder to an experienced student of mental science that "one shall develop into a fool, and another into a man who shall fill the world with the fame of his intellectual greatness." The germs of greatness are discernible in the child, or even in the babe, when they are compared with a less fortunate protoplasm. The wonder to me is, that the distinctive characteristics are not more universally studied and looked for in our children. Educational environments, hereditary bias, and maternal affection have great influence over the development of "thinking" molecules, which, to the unobservant, appear alike, whether from a microscopical, chemical, or so-called scientific point of view. But we cannot hope to create new germinal power : we can only work upon the material at command.

If it be important to understand the laws of life and health, to study the laws of hereditary descent, to investigate the individual characteristics of a healthy person, is it not also particularly important that we should study "the nervous protoplasm gone mad," and obtain every pathological evidence that is possible, and organize a full investigation of the various mental disorders ? Should it not be the duty of every student of phrenology and physiology to register his name on the pages of humanity's great "Blue Book," as a person set apart to enquire into cerebral diseases ? The loss of memory for distinct periods is one of the most touching forms of mental

disease or double consciousness. I will give a fact of this kind from Mr. Wood's article, a fact which shows how a person may lead two lives. It is the case of a young girl, quick, active, full of life and animation, who suddenly complained one day of a very severe headache. She became unconscious, but awoke in a few minutes conscious, although no longer the being that she had been. She was a stranger in a strange land. The father, mother, sisters, and brothers were unknown. The results of years of education had been annihilated. She knew no more of her native tongue than does the child just born. Where vivacious before, she was now dull ; where apt to learn, she was slow ; where before slow to learn, she was now apt. She had to be educated over again. She lived her life, learned her lessons, until she could read and write, and knew her friends once more. Suddenly the headache came again upon her, and a deep sleep fell over her. She again woke up to the old being ; the language acquired in infancy had returned to her ; the facts learned through long years were with her ; the acquaintances of the old time were her friends. The acquaintances, the lessons learned, the facts and events of the second period, however, she knew no more. So she went on until again the headache returned, the sleep was again on her, and she awoke again her second self. At the very page where her education had been interrupted in the second state it was now taken up. She recognised the friends of the second state, but she knew none of the first. So through years she lived on her double life, now one person, now another ; each state being connected with, or rather a continuation of the previous corresponding state. In such a case the lawyer and the theologian alike might argue a long time concerning personal responsibility, and the metaphysician labour in vain to define the *ego*. No facts in connection with the health of the girl or the hereditary influences that might have thrown a spell over her mind were given, and therefore we can form no argument on it.

Another case on mental disease that has come under my own notice will, however, prove how the brain can be diseased in sections. A lady was deranged in the matter of conscience, but perfectly sane in every other respect. The organ of conscientiousness was very large and much warmer than any other portion of the head. Those present during the examination who were disbelievers in phrenology admitted the fact after examining her head. In another case of a diseased faculty, a physician, instead of removing the inflammation, applied a blister, which greatly increased the disease. If phrenology had been understood in the treatment of both cases the symptoms of the

disease would have been taken into account, and relief applied according to the nature of the diseased faculties. Many persons cannot understand why, if an injury occurs to the brain, the individual can go on with any work afterwards. They think the brain has not after all very much to do with intelligence, and consider further that the brain is composed of but one organ, and hence it cannot be injured in one part without being wholly affected. If we examine the theory that the brain is divided into faculties, the explanation of this phenomenon is rational and easily understood, for all the organs are dual, and, like the various organs of the senses, if one side is injured the corresponding organs on the other side of the head being uninjured are able to perform the function : the same as when one ear is injured the hearing is performed by the uninjured ear, though of course less perfectly than when both are sound.

Dr. Guy's work on the "Factors of the Unsound Mind," is interesting and valuable. He states on page 128 : "The great majority of mental diseases are first manifested not by senseless discourse or extreme acts, but by marked changes of disposition." "That insanity in its fully developed stage is but the climax of a chronic disorder of the affections and emotions—a doctrine which modern writers have brought forward, but which Boerhaave and his commentator Van Swieten acknowledged full one hundred years ago." But on a previous page—123—when speaking of the effects of insanity as shown through "the disposition, character, or habitual frame of mind, no less than the emotions and passions brought into play by the objects or thoughts calculated to arouse them," he does not attempt an explanation or analysis of the differences he finds, and contents himself by enumerating through the aid of dictionary and vocabulary the various words in use for describing the leading dispositions or characters of mankind. He considers there are about fifty or sixty. His list comprises the amiable, the affectionate, the cheerful, the cautious, the contented, the persevering and their opposites ; and such contrasts as the bold and timid, the demonstrative and the reserved, the firm and the indulgent, the sceptical and the credulous, the thrifty and the lavish, the moral and the vicious. Innumerable combinations of these elementary characters, harmonious or discordant, make up the individuals whom we encounter in all societies of men, and upon whom outward objects or inward thought stir up the various emotions of pleasure and pain, of hope and joy, of love and pity, of pride and vanity, of awe and veneration, of shame, fear, anger, and remorse. Now if the brain had no distinct areas for distinct

primitive characteristics, it could not be appealed to with any degree of accuracy in the investigation of one form of insanity as compared with another ; but with these centres for special forms of sensation and ideation, a physician can arrive at which form of disease his patient is suffering from if he will take the trouble to examine Dr. Gall's theories regarding the functions and divisions of the brain.

In conclusion, Mr. Wood gives one more thought that I should like to quote—as follows : “If the limitations of science in the study of our own organism be so narrow, how impossible for it ever to fathom the Infinite Spirit. Science does not and cannot with propriety deny the existence of a Supreme Being. The long convergent lines of its study stretch out to a far-off focus in which dwells the First Great Cause ; but to science the nature of this originating central force or being must for ever remain unknown and unknowable. Science knows consciousness only as an attribute of matter. To religious faith alone is it given to apprehend consciousness as an abstraction—consciousness self-existent and eternal, unclothed from material form, but clothed with infinite attributes of power and goodness ; consciousness that is of God.”

It is obvious that the closer we study ourselves, the clearer is our conception of our Creator ; for were we not created in His image, and may we not reasonably suppose that the highest and most elevated characteristics in us are but the faint shadow of His infinite greatness and goodness ? Therefore, to study mankind should be our first object.

J. A. F.

PHRENOLOGY
PROVED, ILLUSTRATED, AND APPLIED.
(Continued.)

Seventh. Partial insanity, or monomania, is utterly at variance with the idea that the mind is a single faculty, employing in its operations but a single organ. A derangement of the mind can be caused only by a derangement of the brain. Now, if all classes of the mental functions, were performed by a single organ, it is evident that a derangement of this organ would cause a corresponding and uniform derangement of all the operations of the mind : whereas, cases of monomania, or a derangement that extends to only one or two classes of the mental operations very frequently occur, whilst all the other classes are performed with perfect sanity and propriety. This, indeed, is the most common form in which derangement appears, many instances of which have fallen under our own observation. We often meet with persons deranged in the matter of

love, or hatred, or on the subject of religion, or with respect to property, &c., whilst they are perfectly rational on every other subject; but, if one and the same faculty exercised the various functions of love, and hatred, and religious feeling, &c., and, also, all the other mental functions, it would be impossible for this single faculty to be deranged in the performance of these first-named functions, while it was perfectly sane in the exercise of all its other functions: consequently it is impossible for the mind to consist of only a single faculty.*

Eighth. The relief afforded to the mind by a change of thought, study, feeling, &c., furnishes another evidence of a plurality of the mental faculties; for if the mind were but a single faculty, this single faculty would have to perform all the mental operations, and consequently, would be just as much exhausted and fatigued by its exercise in performing any one class of functions, as in any other class; and, therefore, when fatigued by exercising one class of functions it could, not only not be relieved, but would be still further exhausted by dropping that class and taking up another.

The student, for example, when suffering great fatigue of mind from a long and continued pursuit of mathematics, or metaphysics, often turns to chemistry, history, the study of language, of geography, or, perhaps a work of imagination, with new vigour and fresh delight, although his fatigue of mind is too great any longer to continue the first study.

Thus it would appear that the various arguments under this second proposition, namely, that the mind performs different classes of functions; that it is capable of performing several classes of functions at the same time; that different individuals possess the various mental faculties in different degrees of strength and power; constituting what is called partial genius; that the perfection of the mind requires that it should be composed of many faculties; that the phenomena of the various kinds of memory could not be produced by a single faculty; that the phenomena of dreaming could not result from the operation of a single faculty; that partial insanity is inconsistent with the idea of but a single mental power; and that the relief which the mind experiences by a change of subject is owing to the exercise of another set of faculties; one and all clearly demonstrate the truth of the proposition, that the mind is a plurality of innate and independent faculties, and that this is a fundamental and constitutional principle of the human mind. Many other arguments in proof of this position might readily be adduced, but it is believed that the foregoing are abundantly sufficient.

III. The brain consists of as many different portions or organs as the mind does of faculties. Throughout all nature different classes of functions are always performed by different instruments, and no single organ is known to perform more than one class of functions. It has already been stated that the organs of seeing, hearing, sensa-

* For a further illustration of this point, see Dr. A. Combe, and also Dr. Spurzheim, upon Insanity.

tion, &c., have been proved each to perform its respective intellectual function exclusively by means of a particular portion of the brain; and hence it follows analogically that all the other mental faculties must also perform their functions by means of the other portions of the brain.

In support of this third proposition innumerable facts have heretofore been brought forward by phrenologists, in addition to which we take the liberty of presenting a few of the many that have fallen under our own observation.

The head of a lady was once examined and found deranged in the matter of conscience, but she was perfectly sane in every other respect. The organ of conscientiousness was very large and much warmer than any other portion of the head. Many persons present, who were disbelievers in phrenology, applied their hands to the head, and very readily perceived and bore testimony to the fact.

A lady once stated that she laboured under a great difficulty in expressing her ideas. Her organ of language was large. Before she had inflammation of the brain, which was particularly severe about the eyes (above which this organ is located), causing excruciating pain in those parts, she could talk with fluency, but since that time she often hesitated for words in which to express the most commonplace ideas. The organ of language being situated upon the supra-orbital plate, its inflammation might easily be mistaken for an inflammation of the eyes.

A little girl of Washington, D.C., received a fracture of the skull in the region in which the organ of tune is located. Whilst confined with this wound, which had become irritated, she experienced what had never been manifested before, a strong and involuntary propensity to sing. Thus the phenomena of music was produced by what, under ordinary circumstances, we should expect to prevent it, viz., a wound; and the only solution of the case seems entirely to turn upon the fact that the inflammation was connected with the phrenological organ of tune. This case was stated by Dr. Miller in the presence of Dr. Sewall, a distinguished physician and anti-phrenologist.

Several cases of monomania, produced by wounds and inflammation in the cerebellum, in which the feeling of amativeness was deranged, have been related to us by Dr. Miller, of Baltimore, and Dr. Jackson, of Boston, with thousands of similar ones stated by Drs. Gall, Spurzheim, and others, all tend to confirm the truth of the proposition, that the brain consists of a plurality of organs.

A man in Hatfield, Mass., who possessed good talents, was deranged in the matter of love, but was sane in other respects. He often complained of a compressed sensation, and of a buzzing sound, exactly in that portion of the head in which the organ of adhesiveness is located. Many other cases in which the individuals were rational, but whose attachments had been interrupted, have complained of a soreness in the same place. In one of these instances, the individual was unable to rest the back part of his head upon a pillow, and suffered so much from the presence of pain as to call in a

physician :* meanwhile the mental suffering, caused by the absence of the object of attachment, was almost insupportable.

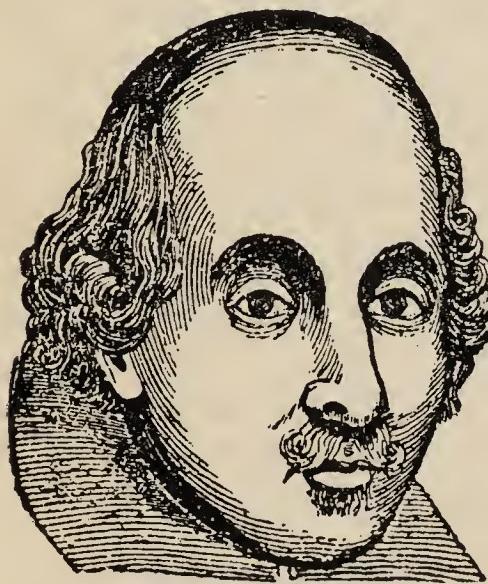
Did the proposed limits of this work permit, many more similar facts would be presented, but those given are deemed sufficient to prove a reciprocal connexion between the diseased condition of certain portions of the brain, and a derangement of particular classes of the mental functions. If the brain is a unity, a disease of any portion of it must affect it as a whole, and, consequently, (on the supposition that the brain is the organ of the mind,) equally affect every function of mind ; yet, since this is not only not borne out by facts, but even in direct opposition to them, the only remaining conclusion is, that instead of the whole brain being employed by each separate faculty of the mind, one portion of it is employed by that faculty, for example, which performs the function of anger, another portion by that which exercises fear, and another by that which exercises reason, and so of all the other mental functions. The contrary supposition is as absurd, and as much opposed to all analogy, both physical and intellectual, as to suppose that the whole body should be employed in seeing, the whole in hearing, in digestion, in respiration, and in every other particular function : and if this connexion between the faculties of the mind and particular portions of the brain exists at all, it follows that there can be no exercise of the one without a reciprocal action of the other. The great Author of nature would not have established this mutual connexion unless the economy of nature required it ; and if this economy requires it in any one instance, it must, for the same reason, equally demand it in every instance.

It may also be added in this connexion, that, according to the theory of the unity of the brain, each faculty must, of necessity, use the brain as a whole in succession, which precludes the possibility of that common and necessary phenomena of the mind, namely, its simultaneous exercise of several faculties.

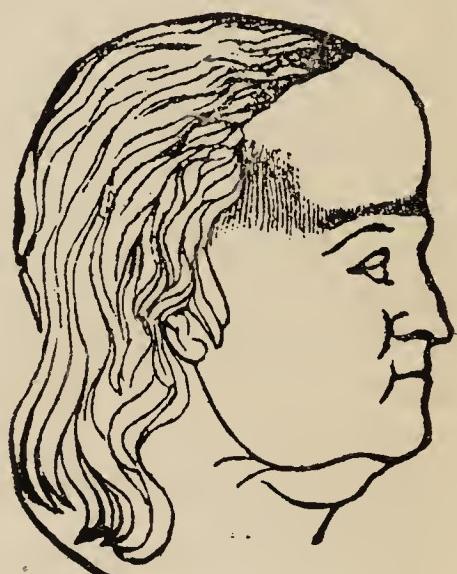
IV. The various faculties of the mind are possessed, originally, in different degrees of strength by different individuals, and also by the same individual. There exists a *toto celo* difference between a Shakspeare and a Franklin, a Howard and a Nero, a Raphael and a Washington, a Benjamin West and a Patrick Henry—a difference which neither education nor circumstances could create, nor even essentially modify. So strong was the passion for painting with West, that he bid defiance both to the corrections of his school-teacher, and the frowns of his parents, and secluded himself in his garret merely to indulge it; and even while a mere child, and without instruction, he conceived and executed some of his most beautiful designs. Diversity and variety characterize the intellects and the feelings of men, at least, as much as they do their countenances, and

* Through ignorance of the real cause of the disease, the mode of treatment adopted in this case was very injurious and highly reprehensible. Instead of allaying the excitement by removing the inflammation, a blister was applied, which greatly increased the disease.

that, even from the first dawn of the mind, and not unfrequently in opposition to circumstances. This diversity of human intellects, dispositions, predilections, talents, &c., is too common and too striking to need illustration. Every individual, in a greater or less degree, furnishes an illustration of this fact. It has even passed into a proverb, that "a poet must be born and not made;" and this applies equally to the artist, the orator, the mechanic, the divine, the naturalist, the accountant, and even to all who excel in any particular calling. The happiness of society, and the improvement of mankind, absolutely demand this variety of talents and character; and, in accordance with this demand, the Creator doubtless intends, and, therefore, qualifies, one man for one sphere of action, and another for another sphere.



SHAKESPEARE.



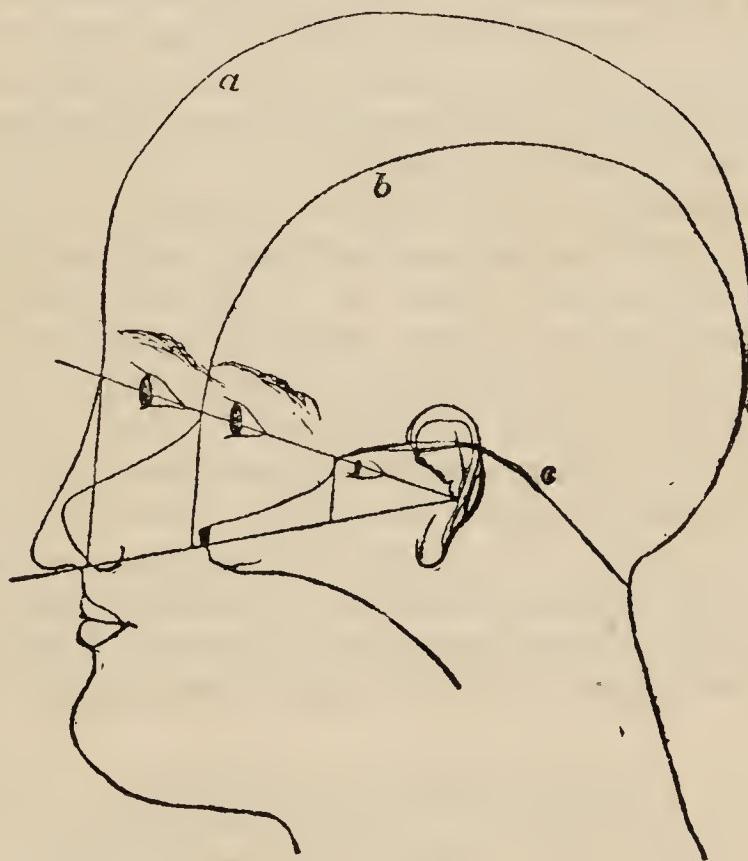
FRANKLIN.

If this diversity and variety did not exist, it is evident from the principle, that like causes produce like effects, that, in all cases, the same circumstances would form similar characters, and opposite circumstances, opposite characters; or, rather, that the character and talents of men would vary in exact proportion to the variation of their education, circumstances in life, &c., so that the one could always be estimated from a knowledge of the other; but the fact is, similar circumstances often produce opposite characters and talents, and opposite circumstances similar characters and talents. The conclusion, then, both *à priori* and from facts, is, that the various faculties are imparted to different individuals, and even to the same individual, originally, in different degrees of strength. The force of education, however, in improving or perverting the faculties, as originally bestowed, in modifying their relative power, and in changing their direction, is not intended here to be denied.

V. There exists a reciprocal proportion between the relative strength and power of the various mental faculties, and the size of those portions of the brain, or those organs, by which they are severally manifested. It has already been shown, that each mental

faculty is exercised, exclusively, by means of one particular portion of the brain ; and, upon the principle, which holds good throughout all nature, that, other conditions being equal, size is always the measure of power *—a principle too familiar to require proof—it follows, that the stronger a faculty is, the larger must be its organ ; and, *vice versa*, the larger an organ, the stronger its faculty.

This proposition is also rendered evident from the established and familiar, physiological principle, that the exercise of any corporeal organ, causes its increase. The exercise of the arm of the blacksmith, causes its enlargement. Those who spend their lives at the oar, thereby greatly augment the size of their arms and chests, while the lower extremities are comparatively feeble. Labouring men generally possess much larger bodies, and much smaller heads, than literary and



scientific men. Give a child no exercise, and you thereby make him a dwarf. Cease to exercise any portion of the body, and it diminishes in size and strength.

Now, since the brain is one of the corporeal organs, it follows (until the brain is shown to form an exception to the action of this law) that the same common law of increase by exercise, and of decrease by inaction, which has been shown to govern the other corporeal organs, equally governs the organs of the brain, causing their increase in proportion to their exercise. And since it has been shown that the various faculties of the mind manifest their functions by means of as many organs of the brain, that these faculties differ in their strength ; that the exercise of these organs must be pro-

* See Combe's System of Phrenology pages 23 to 29, and 90 to 98

portionate to that of their corresponding faculties; and that the increase of these organs must be proportionate to their exercise; it necessarily follows that the increase of each organ must be proportionate to the exercise of its faculty; that for example, if in the exercise of the function of conscientiousness an individual calls into action a given portion of the brain, and in the exercise of benevolence another portion, he must exercise, and of course increase, the organ of benevolence more than he does that of conscientiousness, in proportion as he is more benevolent than he is conscientious, and that the same holds true with respect to all the other faculties of the mind and their corresponding organs of the brain. Hence, a proportion between the two must necessarily exist.

VI. The shape of the brain may generally be ascertained by the form of the skull; or, in other words, an increase of the various portions of the brain causes a corresponding increase of the portions of the skull above them; for, inasmuch as the skull is moulded and adapted to the brain, the conformation of the brain determines the shape of the skull, and, with a few unimportant exceptions, corresponds with it. (See cut of brain in skull.)

The skull is merely the protector of the brain, and subservient to it; that is, the skull is formed for the brain, and not the brain for the skull. How unreasonable, then, to suppose that the skull should throw any obstruction in the way of the development of the brain! This would be like assuming that men are made for the houses they occupy, and not the houses for the men. What! one operation of nature interfere with and prevent another operation of nature! Does the bark of a tree obstruct the growth of a tree? Does the shell of the oyster, the lobster, or the turtle, prevent the increase of, or give shape to the body of these animals? As well might we assume that the skin gives shape to and prevents the growth of the arm, the hand, or the skull, as to suppose that the skull controls the size and shape of the brain.

NOTED ENGLISH WOMEN.

BY FRANCES E. WILLARD.

Now that we are joined in the World's W. C. T. U. in a sort of "ring-round-rosy" reaching round the globe, it behoves us to know more than we have done concerning the leaders among English women. In a recent conversation with one admirably prepared to answer questions, I made notes which I will furnish as a sort of outline for white-ribboners.

Lady Henry Somerset lives in Eastnor Castle, England. She is a gifted lady among the aristocracy, and best of all she is not simply an average, but a really devoted Christian, ready to spend and be spent in the showing forth of a Christ-like life. Withal she is a white-ribboner, earnestly committed to the World's W. C. T. U., and

desirous in the largest way to put at the service of the temperance reform her clear, bright brain, motherly heart, and spiritual illumination. Lady Somerset is a fine speaker, and does not hesitate to use her gifts. She is her own chaplain, reads prayers, and plays the organ at family worship before breakfast.

Miss Gwenillian Morgan, of Buckingham Place, Wales, is the co-adjutor of Lady Somerset in her good work.

Lady Sebright, of London, is a zealous white-ribboner.

Miss Balgarnie is secretary of the Woman's Suffrage Association in England, is a temperance orator, and sound on all the great questions of modern reform.

Lady Rothschild, of Buckinghamshire, lives in the grandest state, but never offers wine. Her daughter, Mrs. Cyril Flower, edits *Quarterly Notes*, in which she brings out all the latest words and works of women for the right.

The Hon. Mrs. Eliot Yorke, of Southampton, is another accomplished leader.

Mrs. Josephine Butler, of Winchester, is well-known to us already as the first woman who ever spoke in public for the promotion of the cause of social purity, and dared to do this twenty years ago, before the coming woman had really come. Mrs. Butler is as much that woman as anybody living.

Miss Ellice Hopkins, of Brighton, is the chief figure in the White Cross movement, having done much to furnish its pure and helpful literature.

Helen B. Temple, Argyle Chambers, 86, Strand, edits the *Woman's Penny Paper, Illustrated*, which ought to be in the hands of every white-ribboner.

Miss Jessie A. Fowler is the corresponding secretary of the British Women's Temperance Association, is an American woman, and well up with the times in all that constitutes progress for women and temperance.

Mrs. Gladstone heads the Liberal League, an organization of women to stand by the great Commoner and Charles Parnell in their efforts to secure Home Rule for Ireland.

Frances Power Cobbe is the greatest ethical writer among women, the granddaughter of Archbishop Whateley. She is a noted magazine-writer, and has given her keen, logical pen for years to work up an interest in the protection of animals, and an organized opposition to the barbarity of vivisection.

Miss Olive Schreiner is the daughter of an African missionary. Her mother has become a Catholic, and Miss Olive is an intellectual recoil from the Calvinistic severities of old time orthodoxy. She is the author of "The Story of an African Farm," a book of remarkable originality, written before she was twenty years of age. Her sister, the elder Miss Schreiner was a delegate from Africa to the World's Good Templars' Lodge at Chicago two years ago.

Mrs. Hannah Whitall Smith, and her daughter, Mrs. Mary Whitall Costelloe, are almost acclimated English women now, and leaders in

every good word and work, who are too well known to American women to need any introduction.

Mrs. Priscilla Bright McLaren, Edinburgh, sister to John Bright, has no superior among the English leaders of women. She is progressive to the last degree, has the courage of her convictions, but combines her radical views on moral and social reform with the rarest urbanity and culture.

Notes and News of the Month.

CATALOGUE of the Institute Library is now ready. Copies can be obtained at the Publishing Room, price 2d., post free.

"G. H." writes :— "I wrote you about two years ago, *re* my health. At that time it appeared as if my health had completely broken down, through wrong treatment, being in perfect misery, and having lost, I thought, happiness on earth, and hopes of heaven. Since then, and to my utter astonishment, by the blessing of God, and greatly helped by the advice you gave me respecting the observation of strict laws and constant bathing, I am strong in body and mind, and useful, as of yore, as a speaker and writer. I believe that the instructions respecting the culture of health in "Fowler's Self-Instructor on Phrenology and Physiology" saved me from being a life-long invalid. This book enabled me to dispense with doctors and medicine for about seventeen years, until knocked down by pressure of over-work. I am now valuing higher than ever the four divinely-appointed doctors, who never send in long bills: Doctor Exercise, Doctor Rest, Doctor Water, and Doctor Diet.

THE fourteenth annual meeting of the British Women's Temperance Association was held on May 24th, at the Memorial Hall, Farringdon Street. Lady Henry Somerset presided over a crowded meeting in the large hall, an overflow meeting being held in the library, Mrs. Gibson, of Stoke Newington, occupying the chair. Madame Antoinette Sterling sang at both meetings during the evening.—Miss J. A. Fowler, hon. sec., read the report, which referred to the great loss the association had sustained by the death of their late president, Mrs. Margaret Bright Lucas, and stated that twenty-three new branches had been affiliated to the association during the year, making a total of 425 branches, consisting of 30,000 members. The financial statement showed a balance in hand of £115. Lady Somerset, the new president, was introduced by Miss M. E. Docwra, and, in her opening speech, said her first thoughts were to decline the honour offered her, but upon further consideration she was led to accept the invitation. For the work in which they were engaged they needed two distinct revelations; one was that of the great power of

God, and the other that which came to them by going down into the valleys to see the great struggling mass of humanity enthralled by the chains of intemperance, and sunk low in sin, wretchedness, and misery. They had won a victory in Wales, the Royal Commission having reported that in Wales the Sunday Closing Act must remain untouched. Several speakers—namely, Mrs. F. E. Barnes, of New York, Miss Conybeare, Mrs. Henry Kingsley, Mrs. Meehan, and Miss Forsaith—followed, and a resolution strongly condemning the compensation proposals of the Government was carried with acclamation.

THERE is one point in Dr. Wilson's reply to Mr. Webb which I should like to allude to here, and which shows how imperfectly the doctor has grasped the principles explained, or held out by phrenologists. He says that phrenologists ask you to believe that phrenology is a science and true, because the size of the brain indicates the amount of intelligence. That is an argument worn so threadbare, that I should think any reasonable thinker would be ashamed to mention it, after the evidence of years that has been offered in explanation. But perhaps Dr. Wilson has not listened to a word of this evidence, but busied himself in dissecting the bones and brains of the lower animals, instead of the bones and brain of the highest animal—man; and therefore does not know that phrenology hangs on stronger pegs, and more firmly driven, than even his great mental strength can pull down. We ask him therefore to reconsider his assertion as to what phrenologists say (?) about *the size of the brain* indicating the amount of intelligence in the mind. We know in the vegetable kingdom that a large turnip does not produce always a good eating quality, that the largest oranges are not pronounced the best, and that the largest brains are often the most stupid developments of humanity. James Morris, who had an immense development of cranium, with a brain weight of 67 oz., was the direct opposite to an intellectual man. So James Madden, of the United States, who possessed a large head, and a brain weight of $62\frac{1}{4}$ oz., used it in no better work than gambling. Mere weight or size alone does not prove intelligence, as the heads of multitudes of our celebrated men go to prove, for in a large number only the average size is found; but quality and balance of organization together, help the average brain to compete with the larger and coarser quality. It is rather the exception when a large head and fine quality go together, but when that is the case, we find corresponding power. No phrenologists—who know their work—will be foolish enough to give out as an evidence of the truth of phrenology that size alone is a measure of intelligence.

J. A. F.

Correspondence.

To the Editor of the PHRENOLOGICAL MAGAZINE.

SIR,—As a reader of the above and a disciple of phrenology, I should esteem it a favour if you would enlighten me on the following subject: Does the faculty of Human Nature, or Intuition, give the function solely of perception and insight of human nature, or does it in addition impart to the mind the power of perception and insight of objects without intervention of other ideas and faculties? If not, for what reason has the name Intuition been given to that faculty?

Trusting to be favoured with answer in your next issue of MAGAZINE,

I am, Sir, yours,

INQUIRER.

[Intuition is synonymous with Human Nature. The organ gives intuitive perception of truths and ideas that relate to human beings.
—ED. P. M.]

What Phrenologists are Doing.

[In sending notices for this column, correspondents will oblige by enclosing their communications in an envelope and addressing them to the office of publication of the PHRENOLOGICAL MAGAZINE. Newspaper cuttings pasted on post cards are an infringement of postal rules and subject to a fine.]

I NOTE that Professor Coates, Rothesay's own phrenologist, has returned to his old quarters at Combe Lodge, Argyle Street, where he gives consultations daily. This is Professor Coates' eleventh season in Rothesay, where he is very favourably known both to residents and visitors.—*The Buteman*, 7th June, 1890.

PHRENOLOGY.—We have pleasure in directing our readers' attention to the fact that Mr. J. Millott Severn, M.B.P.A., of the London Phrenological Institute, is again visiting Ryde. It is nearly two years since Mr. Severn visited the town, and we know that many on that occasion profited by having their characters delineated. Mr. Severn has had great experience which makes him duly qualified to ascertain the special gifts of the individual who may wish to consult him. The Professor, since his previous visit, has professionally examined over 12,000 individuals in Nottingham, Sheffield, Leicester, Brighton, Hastings, &c. Many of the most sceptical have come to believe in the science of phrenology, and in these days no one should neglect seizing any opportunity that may present itself of advancing the interests of either themselves or their children. Phrenology undoubtedly teaches a man to know himself, and the science is appreciated by all thoughtful and intelligent people. Mr. Severn's consulting rooms are at 62, Union-street.—*The Isle of Wight Times*.

PHRENOLOGICAL SOCIETY.—The usual fortnightly meeting of the above society was held on Friday evening last, when a long and im-

portant discussion took place as to the position and action the society should take with regard to the itinerant phrenologists who visit Tasmania from time to time. While the society was always ready to extend the right hand of fellowship and assistance to properly trained and genuine practitioners, the members unanimously agreed that some steps should be taken in order to protect the public from being victimised and deluded by self-styled and *pseudo* "professors" of the science, who not only do much to bring phrenology into contempt, but also enrich themselves at the expense of a too-confiding but (in this matter) ignorant public. Many suggestions were made, but owing to the difficulties which surrounded the matter, the subject was adjourned until next meeting. On account of the length of the debate, Mr. Connor's lecture was held over.—*Tasmanian News*, April 28.

Book Notices.

How to Read Heads, by James Coates (London : L. N. Fowler, Imperial Buildings), is the attractive title of one of the latest books on phrenology. The author takes for granted that the student knows the elementary points of reading heads—such as the location and definition of the faculties—for he confines his remarks to conditions to be taken into account. He explains the various types of head, and the things to be considered in the judging of character, health, quality, temperament and measurements. The first edition has nearly been disposed of, which speaks well for the book, considering it has only been in the publisher's hands a fortnight.

Fruits, and How to Use Them. A practical manual for housekeepers, containing nearly 700 recipes. By Mrs. Hester M. Poole (New York : Fowler & Wells Co. ; L. N. Fowler, London). We have cookery books without end, and they are multiplying with their repetitions of similar lists of roasts, fries, stews, bakings, boilings, and of pies, cakes, puddings, plain and fanciful, with minor differences of arrangement and miscellaneous notation, but among them all there has not been a treatise making a speciality of Fruits and their uses. For apples we find directions for use in nearly 100 different ways ; we are taken through a long series, inclusive of fruit products of the temperate and tropical zones, the tamarind being the last. The work tells how to put fruits on the table, and how to prepare the various forms, baked, stewed, canned, jellies, preserving, etc., dealing not only with new ways of using well-known fruits, but bringing into notice many fruits somewhat unknown, or that have been deemed of but little value. There is indeed a refinement in fruit eating that responds to the taste of those who would be free from the habits of the past, and there are few people comparatively who are not fond of fruit, and their use of it expands with their knowledge of its adaptation. The volume is neat and compact in form and in style, and the arrangement shows the hand of an experienced writer on topics affecting the home and family.

A Memoir of the late Mrs. Lucas, sister of John Bright, and President of the British Women's Temperance Association, has been published by that Association, at the Memorial Hall, Farringdon Street, price 1/6 nett. Her brother, Mr. Jacob Bright, M.P., says, in a letter quoted in the introduction, that "the cause of temperance occupied most of her time, but there was no good cause that had not her support, and during the last few years the struggle for freedom in Ireland aroused her enthusiasm, and was watched by her with the keenest interest." The book contains an account of her early life, girlhood, motherhood, and widowhood, with a running commentary on the various interesting events with which the life of a woman of such a distinguished family is sure to be filled. In illustration of her devotedness to any work she took in hand, it is stated in the Memoir that she thought no work for a good end beneath her, and that once, if not twice, when the Saturday Hospital collection was made out of doors, she undoubtedly risked her own health by sitting at a corner of a street at the East-end of London to solicit and receive subscriptions from the passers-by. "It always seemed to me," says one of her admirers, "that, like her brother, John Bright, she had a power in her person more weighty than her strongest words and arguments. It arose from the moral grandeur of her character." The book is after the style of Henry Drummond's "Greatest Thing on Earth." It is printed by the Women's Printing Society, and contains the photo and autograph of the well-known and much beloved Quaker lady.

Our Prize Competition.

We offer two new prizes as follows:—1st prize three handsomely bound volumes of the "PHRENOLOGICAL MAGAZINE"; 2nd prize, Mr. Fowler's half-guinea china Bust.

The above will be awarded to the two competitors answering correctly the greatest number of the six monthly questions appearing in the June, July, and August Nos. of the "PHRENOLOGICAL MAGAZINE."

All answers must be written on one side of the paper only, and must reach the Office of the "PHRENOLOGICAL MAGAZINE" not later than the 15th of each month.

PRIZE COMPETITION QUESTIONS.

1.—The late Benjamin West, President of the Royal Academy, was most persevering as a painter. Had he large Firmness?

2.—Have Indians a conscience?

3.—Was Dr. Samuel Johnson gifted with a strong faculty of Hope.

4.—Have children usually a strong or weak development of the faculty of Marvellousness.

5.—Are the convolutions which constitute the organ of Veneration to be found in the brain of the orang-outang?

6.—Mention the circumstances connected with Gall's discovery of the organ of Benevolence.

Character Sketches from Photographs.

JOAN BACH.—The photograph indicates a strong vital organization, and also warm blood and a restless disposition. He has a practical cast of intellect, is quick of observation, and readily acquires knowledge in the direction of his observations. He is particularly ambitious, and anxious to excel in some public capacity. He will never be satisfied with an ordinary sphere of life, but he cannot expect to sustain himself in a public sphere without an education qualifying him for it. He is ingenious, could learn a trade, could make a builder or a scientist. He is fond of experiments, much interested in all kinds of mechanical movements. If he cannot settle himself to some mechanical sphere of life, and is successful as a scholar, he had better study and qualify himself for some profession. He would succeed as a physician, a speaker, or to hold some office under Government, but he had better not devote himself to a sedentary life. He requires considerable exercise to keep up his health. His moral brain is good, and his desire will be to preach, for which he is well qualified ; next, a physician ; thirdly, a builder ; fourthly, an enterprising business man.

MADAME D.—This photograph shows a very high development of the vital temperament ; one that will enjoy life and physical exercise in the highest degree. She is warm-hearted, social, companionable, and entertaining. She is highly ambitious in many ways, but first to make friends and enjoy their society. She is quite mindful of appearances, anxious to do her best, and to render herself acceptable to all her friends. In matters of importance she is capable of showing great will-power and determination of mind, but usually she adapts herself in an agreeable manner to friends and society. She could make a good sister of charity, especially among the sick ; she would make them feel better simply by calling and having a chat, and more especially if she laid her hands upon them and blessed them, for she is full of magnetism, and is able to relieve pain and give strength and courage to the weak. If necessary she could be a good business woman, and as one would have the business done up promptly. If she were to devote herself to public speaking she could succeed well as an entertainer and instructor ; few persons have a greater variety of knowledge to impart, or can tell what they know to better advantage than she can. She would enjoy travelling and coming in contact with the external world. She could not live a quiet retired life, but be occupied in some sphere where she can give her services to some philanthropic cause. If she had to choose a profession, the medical should be the first, and next to impart instruction in moral and scientific channels, and next to devote herself to the family and home circle. Thirdly, she is more responsible than many because she has so many desirable gifts, and she must see that they are used to the best advantage.

CHELSEA.—Has a predominance of the motive and mental temperament, hence he is naturally industrious, and prefers to be occupied.

He has a predominance of brain power, consequently he shows his activity first in a mental, and second in a physical direction. He always had a desire for an education and to be employed in public life in some way. He would have made a good business lawyer. He has favourable talents for a literary man, he is also rather fond of experimental sciences. He is quite minute in his observations, in studying mind, hence he watches people with great interest, specially strangers. He is remarkable for his intuition, his quick and correct perceptions of character ; his mind comes to a crisis readily, can answer questions as soon as they are asked, is very intuitive in his perceptions of truth, is liable to criticise too closely, is not satisfied unless everything is as near perfect as possible. He has more than average taste with reference to style, culture, and perfection in art literature, and character. As a teacher he would be very explicit; as a manager in business he would be decidedly positive in the position he took, and require others to follow instructions. He possesses more than ordinary energy, stamina, force, ability to endure pain, and if necessary to cause it. He has great presence of mind in times of danger, and would appear to a much better advantage under high pressure than under ordinary circumstances. Is strongly inclined to friendship and to do the most good to the greatest number. As a magistrate or judge you would take a firm position, and would be governed by the law, let the consequences be what they might.

J. C.—Has a particular organization, having a very dense and compact brain, is strong-minded, vigorous in thought, original in conception, extravagant in imagination, joined to great versatility of talent ; being broad between the eyes and fully developed in constructiveness joined to his intellect, could invent, be an artist, and show great versatility of talent. He takes extravagant views of life, and is particularly fertile in originating ideas, and modes of reasoning. He finds it very difficult to follow in the footsteps of anyone. He allows no one to do or think for him ; in fact he has too many thoughts of his own, and is anxious to do more than he is able to do. His fault lies in not being sufficiently practical, and he is too philosophical. His large form and size with his higher intellect would enable him to design, draw and take likenesses even with the pencil, for he has good powers of imitation and more than ordinary versatility of talent. He is fond of poetry, oratory, and works of art. He could not easily confine himself to a limited sphere of life ; in fact, his mind expands too much, and covers too much ground. It would take several men to fully carry out all his ideas. He is more forcible than copious as a speaker. He speaks to the best advantage in an argument. He takes mirthful and ridiculous views of subjects, and knows how to make fun or to make things appear absurd when he wishes. He has power as an inventor, and if he does not show it in a mechanical way he would in other directions. He is strongly attached to home and friends, and could enjoy married life highly. He must curb his imagination, think less, observe more, and put into practice his thoughts rather than devote himself to gaining new ones. Strive to live more like other people, and enjoy life as you go along.

THE
Phrenological Magazine.

AUGUST, 1890.

MRS. H. M. STANLEY.

THIS lady is highly organized, and is very susceptible to external influences and internal emotions. She has a positive character and a distinct individuality. She must have always stood out by herself, and



thought and acted for herself, as though she had early been thrown upon her own responsibilities. She is somewhat different from most ladies because of her distinct individuality. She does not easily merge in with others, and become one of

the company. She enjoys labours connected with intellectual and moral subjects more than those relating to mere social life. She may love very devotedly, but not very promiscuously. She would have other things to gain in loving and wedding, as well as social and domestic happiness, for one of the most prominent features of her character is ambition. She wishes to excel in everything. Her desires from a child must have been to gain reputation, to be a favourite, to do such things as would bring her favourably before the public. Her sense of character is great ; of the two, she has more pride than vanity. She is more anxious to do that which will command respect than to do such things as to ingratiate her with public favour.

In a certain sense she may be fashionable, but she thinks a great deal more of gaining the respect of respectable people than of being admired in a fashionable way.

She has more than ordinary power of will and determination of mind. She can do very much as she wants to do because her self-governing powers predominate. She appears to have almost a rigid sense of justice, which must have had a prominent influence in her character all her life. In fact, this appears to be really the leading, ruling quality of her mind. She is full of hope and expectation : she lives for the future more than the present. She appears to have a strong feeling for the good and great. Her sympathies go in certain channels. She has the power within to withdraw from the public, and devote herself exclusively to the object she has in view. Her sympathies go with her affections, and, both being excessive, would allow her to be very devoted to the few whom she loves. She is watchful, has forethought, and more than average alertness of mind. Is very distinctly conscious of what is going on around her ; is alive to all the news and doings of the day ; is full of spirit, life and action ; and she represents herself in what she does, for she puts her soul into her work. Her resentments are quick and sharp, and the way she punishes her enemies is to let them alone, and keep away from them ; but she has a lot of courage to fight for her cause or objects of love. She is full of enterprise, and although cautious, yet she is almost fearless, for her ambition will not allow her to pass quietly along.

She has the power of keeping her own affairs to herself, and knows how to talk without committing herself, and yet she appears to have good conversational talent, and plenty of knowledge that she could communicate.

Her intellect is of the perceptive, practical, critical, artistic type. She is specially observing, hence is well posted up in all particular matters, and in what is going on around her.

She has a superior memory of what she sees, where she goes, and what she does. She is particularly intuitive, practical, and sagacious : is quick to take a hint and to see the bearings of a subject ; is very apt in making strong comparisons and contrasts, in representing resemblances or differences, and, as an artist, could make bold outlines. She is a great student of nature, especially gifted in discerning character or truth. She decides on the spur of the moment, and her judgment of the dispositions of others is quite accurate, and she seldom has occasion to change her opinion. She has not so much power of invention or ability to get up new designs, as she has the power to copy, to make and build outlines.

She is always in earnest, and means what she says ; sometimes is too truthful to be agreeable, for she jokes on facts.

She appears to have good powers of imitation and capacity to copy or represent things as they are. She also has order and system, and is thorough in what she does, and leaves nothing half done.

She has about equal gifts as a writer or artist, and possesses a very strong desire to study and copy nature. She delights to be where she can see things as they are.

She is liable to get too much work on hand ; she wants to do everything. She will be exceedingly fortunate if she gets through the meridian of life without breaking her constitution, for she is liable to overdo and increase rather than diminish her work.

Taking all things into account, she should be noted for her ambition, pride of character, power of will, forethought, and sense of justice ; for her extensive powers of observation, memory of actions, and desire to study nature ; for her intuitive perception of truth and character, and ability to represent herself in strong, bold lines.

She will always be known more for her intellectual abilities than for her domestic disposition. As a wife and mother she will be more exclusive and devoted than many, and consequently contented to concentrate enjoyments in her home. She is not one of the quiet, docile, easy kind ; but is full of life, of spirit, energy, and ambition, and is anxious to make a noise in the world.

BIBLE PSYCHOLOGY AND THE PHRENOLOGY OF THE FUTURE.

THE object of Bible revelation was not intended to unfold to man the relations betwixt Mind and Matter (science) in any

of the departments of the works of God. To have opened up to the first inhabitants of the earth views of the true mechanism of the heavens other than they appeared to be, or that it took eternities of time to evolve the visible things around from the invisible, would have tended to create a species of disbelief in simple Bible truths, and to have thrown a barrier around the teachings of the Word of God, to overleap which would have been more than a match for man either before or after the Fall. When Scripture alludes to phenomena in Nature which observation and the senses seemed to contradict, general terms were employed, and man was left to translate those generals into particulars as mental development and increasing knowledge might afterwards sanction. In this way, views, or opinions, apparently not in harmony with science, assumed quite a different aspect when inferences were drawn from another kind of data. When the Bible, however, speaks on its own special subject—that for which it was given, as an inspiration for the guidance of man—the language used on those occasions is specific, decided, and, within its own domain, given out with no uncertain sound. For example, in the creation of man there are three things mentioned : 1st, there is the lifeless mechanism called man ; 2nd, the breathing of God into it ; and, 3rd, man's becoming a living soul (*psyche*)—a *tertium quid*—midway between the lower nature—the body—(*soma*) and the higher nature—the breath of God—(*pneuma*). Here the language is definite—a composite being of three distinct parts : and yet Plato, Socrates, and the Grecian school of philosophy, boldly affirm that man to be made up of two parts only, body and soul. Who knows best, God or Plato ? the Creator or a something, an anything, called a Greek philosopher ? This Platonic notion has interwoven itself most deleteriously into our modern theology, into the theories of medicine, aye, and in many other things, and old Plato actually sits at the tables helping our modern divines to translate the Jewish Bible. Hear what John Wesley, the great founder of Methodism, says : “I am now an immortal spirit, strangely commingled with a little portion of earth.” (False ; he is a man, not a spirit.) Bishop Butler, author of the “Analogy,” says : “Our organised bodies are no more ourselves than any other matter around us !” (Another lie.) According to these two divines, the soul is the man. “There is no death,” says Wesley ; “it is merely a separation of body from soul.” Paul says : “Death passes upon *all men*.” Wesley says : “Death passes upon *no man*.” Who is most likely to speak the truth, Paul or Wesley ? But our object in this essay is not to find fault with the Platonic

notions, proclaimed week by week from the modern pulpit, but to point out the mode by which to arrive at a correct mental philosophy for the future.

What is the function of each of these trichomatic parts of human nature—spirit (pneuma), soul (psyche), and body (soma) ?

The soul, as before stated, is in mode of action midway between the spirit and the body ; and, in its widest sense, embraces the animal propensities, the intellectual faculties, and the moral emotions. As energy in mechanics must have matter to work with ;* so soul, with its faculties and powers, requires cerebral organs wherewith to be able to manifest these innate susceptibilities of spirit matter.

The body can be separated from the soul and pneuma by death ; but, whether these latter could exist of themselves as distinct entities, it is not easy to say. When the soul, or psyche, listens to the desires or promptings of the animal body, we have man, and his doings, as he exists on the earth at the present time ; if, on the other hand, the soul, being midway between body (soma), and spirit (pneuma), listens to the Divine aspirations of the Spirit, the God-element in man, then we see him as he lived and moved, and had his being in a primeval and higher state of existence.

Before the Fall, the pneuma guided the chariot of humanity ; the soul and the body being in strict subserviency to its guidance ; but, after that sad event, soul and body at once mounted the chariot box, sent the pneuma to the footman's seat behind, and drove off in triumph whithersoever their fancies and desires might lead them.

Passing over æons of time and almost countless forms of civilization in different parts of the world, in fancy, let us arrive at Athens, “the eye of Greece,” enter the halls of philosophy, and listen to Plato as he expounds to his admiring students the “Nature of Man.” He was a heathen philosopher but almost Divine in his innate utterances of things relative to matter and soul. He had not heard of Christ or of a Divine Revelation ; hence, the pneuma, the Spirit of God, inbreathed into man was an element in human nature unknown to him. Of necessity, Plato was a bichotomist. He knew of nothing but the visible body and the invisible soul ; and that, when the body died, the real man or “glassy essence” was immortal, and Elysium was his final home. This doctrine Plato taught, and it pervades largely the literature and theology of the

* So say Professors Stuart and Tait, joint authors of “The Unseen Universe.”

present day, although it is 2,000 years ago since these and similar views were written by Plato in his "Phœdo."

Since that time, and within less than a century of our own day, a relation between faculty and a cerebral organ seems not to have occurred to anyone, save Lord Bacon, who, in the "De Ang," threw out a hint in this direction, when he says, "that unto all this knowledge of concordance between the mind and the body, that part of the enquiry is the most necessary which considereth of the seats and domiciles which the several faculties do take and occupy." Here is incipient phrenology ; *i.e.*, a broad hint is given to find out the organs in the body which the soul uses in manifesting itself in this life. In due time a German boy, at school in Vienna, noticed that those school-fellows who had a good memory for words had very prominent eyes ; and this observant boy's name was Francois Joseph Gall, who afterwards became the celebrated Dr. Gall, the founder of phrenology—*i.e.*, of soul and spirit manifestation through cerebral organs specially adapted to them, a relationship which no human being had ever thought of before.

When school-days were over, young Gall began to turn his thoughts on what should be his calling in after-life ; and after much reflection and consultation, the medical profession was selected. In this new sphere the young student did not forget his schoolboy observation—viz., that a full eye and a strong memory of words were at least coincident. He now looked out to see if he could find any other mental peculiarities and local cranial shapes or enlargements amongst his fellow-students. In this he was successful, and soon found the seats, or organs, of other mental faculties, and the impression became vivid that soul-function manifested itself through brain-formation. This was really the key-note to the grand discovery of cerebral physiology and psychology. After years of labour and toil, Gall discovered the location and functions of 27 cerebral organs ; and Spurzheim, who joined him while following these investigations, made out as many as 35 altogether. Dr. Gall published a work containing his cerebral discoveries, in six volumes, accompanied with 100 explanatory plates. His fame now spread far and wide. The greatest anatomists in Germany and France acknowledged the truth and grandeur of his discoveries. Reil, and Loder, and Huferland declared that the discovery of the cerebral organs and their functions would render Gall's name immortal. Leaving Vienna, and taking a tour through 34 towns of Germany, it became one splendid triumphal progress. "I experienced," said Gall, "everywhere the most flattering reception. Sover-

eigns, ministers, philosophers, legislators, artists, seconded my designs on all occasions ; augmenting my collections, and furnishing me everywhere with new observations. The circumstances were too favourable to permit me to resist the invitations which came to me from most of the universities." Not so were his new discoveries received by the Anglo-Saxon bigotry of the medical profession of England. Be it recorded that Gall's anatomical discoveries were branded in England with a vituperation almost scurrilous, so that Gall only paid one short visit to London, and then retired to Paris, where he afterwards enjoyed a splendid medical practice. The great Cuvier himself attended the lectures and dissections of Gall, and had it not been for the jealousy and hostility of Napoleon the Great, acting upon the notions of some few paltry, bigoted sciolists in Paris, he would have had a yet more splendid career in France than even that which he had.

For forty years phrenology has been little heard of in England in consequence of the opposition of the medical profession ; but, owing to the advent of Mr. Fowler from America, aided by some noble-minded Englishmen, the progress of phrenology has silently advanced. In spite of Medical Trades-Unionism and Academic bigotry, there has run a deep current of belief in the minds of the people—those great depositories of truth, and pioneers of new forms of knowledge, which Universities often scowl down upon, and will not admit new ideas to form part and parcel of a collegiate curriculum till compelled by the force of public opinion so loudly expressed that resistance becomes synonymous with folly. The modern men of physic have lately found out that the old fogeys of the last half-century were no better than so many anatomical dummies, verifying statements of the truth of which they knew nothing, and denying the value of experiments the *contra* of which they had not proven or even attempted to prove. Lately, one of their number—Dr. Ferrier, of London—has tested the organological discoveries of Gall and Spurzheim by a series of inductive experiments of a totally different kind from those followed by the great founders of the science, and with the marvellous result that, with the exception of the position of four organs, the cranial location is perfectly correct. Such is this one-eyed Cyclope of medical bigotry as he stands gazing into blank space, as the Argus eyes of society look upon him at present ! Well, then, what is the upshot ? Why—that phrenology is a science, and so far as the inductions have gone, is correct. But the question is asked—Is this all ? Does the phrenology of Gall, of Spurzheim, and of Combe, explain the whole and the entire

physiology and psychology of the brain and the several functions thereof? We trow not—for all the stones of truth have not yet been quarried out. What do the nerves in the brain-spaces indicate which are left unappropriated in all the several organs? Is it to be supposed, for a moment, that just one central point of an organ gives rise to, or manifests the whole function of the soul, and that the proximate numberless cerebral molecules have no similar correspondent relations to the central cerebral mass? Impossible! Then, too, there is the base of the brain inaccessible and hid from mortal sight. Have these parts no function? Have the psyche and the pneuma no other organs by which to manifest their hitherto unknown powers? Surely the grandeur of the "*Homo*" has not attained its full splendour of development by the comparatively feeble manifestations at present exhibited! No; certainly not. There are powers and faculties in the soul (the psyche) undreamed of as yet; and the pneuma (the God-consciousness in man, the Divine-breathed-in spirit) is yet hardly known even by name, its organ having not been pointed out, and consequently its culture and training are as yet one of the impossibles.

Now the improvement in the phrenology of the future referred to above—viz, the filling in of the unappropriated portions of the organs by demonstrations of the functions of the analogous molecules of the brain, might have taken place forty years ago, as Professor Joseph Rodes Buchanan (now of Boston, but then Professor of Physiology in the University of Indiana), by a series of the severest forms of demonstrations, had then proved the functions of these unappropriated portions of the cerebral organs, and shown the locations of these minor parts by means of busts and maps; but the organs of self-esteem and love of approbation were in such a high intensity of action in Scotland that the members of the Phrenological Society of Edinburgh, one and all, cried out—"Away with your demonstrations; we'll have none of 'em.' So these phrenological philosophers, forsooth! treated the great American *savant* in the same style of hostility as Lord Jeffrey and Sir William Hamilton afterwards treated them; so what was sauce for the goose was sauce for the gander.

Although, as before stated, the organs discovered by Drs. Gall and Spurzheim serve to explain the general and somewhat diversified phenomena of human character, yet these cerebral organs are found by Dr. Buchanan to be of a composite nature, and made up of many minor nerve-organs, each having a perfectly distinct function; and that when these explorations were followed out in the analysis of all the

large organs discovered by Dr. Gall, the number of new organs with their functions would be greatly increased. The number of distinct organs of the brain made out by Dr. Buchanan, with their special and distinct functions, was found to be 166 ; but with a person of large brain, of high susceptibility, and well cultivated both morally and intellectually, the number of organs might amount to 200.

This is a new phrenology worth the name, and many of the powers and faculties in old metaphysics seem likely to turn out to be correct now that a new order of cerebral organs has been discovered ; as, for example, memory, consciousness, abstraction, and many others, elaborately worked out as independent faculties of mind by Locke, Reid, Stewart, and Dr. Thomas Brown. There may be primitive faculties, although their cerebral organs have not been previously discovered.

Will any mental scientist pretend, or dare to assert, with even these splendid additions to the organology of phrenology, that human nature has been explored throughout its whole wide capabilities of manifestation ? Surely not. Give praise to him to whom praise is justly due. Buchanan has proved himself to be the Gall of the New World. What Stanley has done towards bringing Africa within the dawn of a new civilization, Buchanan will have done similarly for the soul-land of the dark continent of mind. Buchanan, having entered the cerebral forest of psychology, like another Stanley, cut his way through the piled-up impediments of ages of prejudice, till at length the light of truth burst upon him with all the splendour of a cloudless morning sun-rise.

So much then for the new phrenology of soul-manifestations and the new psychic organs through which these powers or faculties are made known.

We now come to the Divine part of man—the once glorious human spirit—the pneuma of the Greeks, the ruasch of the Hebrews—the divinity which once sat on the imperial throne of man's nature ; but oh ! (with Dryden's lines little altered), we say how—

“ Fall'n, fall'n, fall'n,
Fall'n from its first estate,
Unless aid Divine come quick to help.”

Will some member of the British Phrenological Association carry out a still more advanced phrenology and point out the organ of the pneuma, its functions, and its bearings on pneumatae and the theology of modern times ?

SAMUEL EADON, M.A.

GALL'S SYSTEM AND PHRENOLOGY. FROM AN "INDEPENDENT" POINT OF VIEW.

To many readers Gall's system and phrenology may appear synonymous, but actually they are two different subjects. The former embodies the anatomical observations and physiological researches of Gall; the latter, though intended by its originator, Dr. Spurzheim, to convey "the" doctrine of the mind, is for our generation at all events only a term for the art of delineating character from the formation of the skull. True, Gall laid the foundation of phrenology; he recorded certain correlations which he had observed between excessive or very defective developments of particular brain-areas and definite peculiarities of character, but he supported every one of his conclusions with facts drawn from other branches of science. Phrenologists, on the other hand, confined themselves more or less to skull-developments without that strictly scientific method or such evidence as is admitted by learned men.

Dr. Gall observed, for instance, the posterior part of the second frontal convolution, or rather that part of the skull which corresponds to it, to be prominent in mimics. This observation can be verified by various methods. Mimicry consists of an unconscious facility to move the facial muscles in the imitation of gestures. The electric current applied to that region causes movements of these muscles, and when they are paralysed, disease of this brain-area is frequently observed.

The phrenologist asserts that there is an organ of imitation in a particular region of the head; he can show the approximate situation on the skull. What are his means, however, of demonstrating such an organ? The existence is hypothetical; no method has yet been discovered to demonstrate its situation.

Phrenologists must take into account that outside their own circle a "science" of phrenology is not known, in spite of the fact that Gall's teachings are almost universally acknowledged, though without reference to the author, whose books are hardly known. His writings have hitherto been condemned together with phrenology, because of the imperfect quotations which have appeared in the works of his followers, and because these latter conveyed the impression that Gall's system and phrenology are one and the same subject, and that with the one the other must rise or fall. This is a decided mistake.

Dr. Gall was an anatomist, physiologist, and pathologist.

He was renowned as such long before his assistant—Dr. Spurzheim—deserted him to win fame for himself. Enthusiastic were the accounts which appeared of Gall's travels in Europe in contemporary medical journals, but all reputation was destroyed when his follower brought out a doctrine, termed phrenology, based upon some of Gall's observations and discoveries, and submitted it to the British public as a perfect doctrine of the mind and the joint work of master and assistant. The new doctrine was rejected, and the abuse which Spurzheim had to suffer reflected upon Gall and ruined both. Spurzheim, though he may have been a man of genius, made the mistake of extending the work of Gall before insuring its foundation. Before the latter was understood and recognised as true, it was unwise to build a doctrine upon it. Had it not been for that error, Gall's original researches into the anatomy and physiology of the nervous system might have received recognition. Gall discovered a number of facts in comparative anatomy—as, for instance, the difference in the temporo-sphenoidal lobe of the brain in carnivorous and herbivorous animals. He noticed the resemblance existing between the brain of murderers and the carnivorous type. He put great stress upon the fact which he had observed, but the deduction he drew from it he left open to criticism. He knew that he might be wrong in his conclusions, and that facts drawn from other branches of science, or future discoveries may suggest better terms and a different hypothesis. For this reason he changed “the propensity to murder” readily into “carnivorous instinct.” The explanation of the resemblances observed may be rejected, but the fact itself cannot be denied. Spurzheim and Combe, instead of recognising the importance of Gall's anatomical and physiological labours; instead of translating his works, and drawing attention to his great discoveries, as scientists would have done, looked more at the deductions which could be drawn from these; principles which were yet in question they extended; they were philosophers but not scientists. The fundament upon which they built has been re-laid only within recent years. Gall's fundamental laws of the relationship of brain and mind is demonstrated to-day by entirely different methods, and many of his discoveries have been re-discovered. Phrenology will not, and cannot, receive any attention until Gall's system is accepted. And now that scientists—at least, some of them—have learned to distinguish between the two, the latter becomes once more a subject of consideration. I have met with little difficulty in gaining a hearing for Gall, and I am gratified at the reception which my scientific papers have received. No

scientist, no real unprejudiced scientist, questions any longer the principles of Gall, his discoveries of such types as the murderer's, gladiator's, or sensualist's brain, and acknowledges even a good many of his definite localisations of functions. Thus Dr. Gall is gradually gaining the recognition which he deserves.

The case is different with phrenology. Scientific assemblies will not hear of it ; they consider the method of phrenologists unscientific, and, as no other method has been discovered as yet, the doctrine remains undemonstrated. To the majority of minds, phrenology is a pseudo science, based upon the development of bumps in connection with an imperfect analysis of human character. Most phrenologists have protested against that view. They assure their audiences that they do not look for bumps. But who believes them, as long as they exhibit those pictorial maps of the brain divided into 42 sections ? From a commercial point of view, such a show is justified, but it does not raise phrenology in the eyes of the scientists. Perhaps my friends have given up long ago the idea of convincing the latter, and in reality their case is no worse than the one frequently quoted by foreigners—as typical of the English character—of Englishmen sending out missionaries to savage countries and shipping in the same vessel loads of wooden gods for sale.

Many phrenologists argue that their method has proved the most successful, and I must admit that practical demonstration is very convincing. Unfortunately, however, these demonstrations are preceded by lectures in which there is much talk on brain physiology, with which the majority of practitioners are imperfectly acquainted. If the audience is above their standard of education, they discredit themselves and the subject, and even if the audience is below them in experience and knowledge, a report of the statements made gets through newspapers into the hands of men who know better. I have seen a number of such reports, and I advise all those who wish to raise phrenology to leave brain functions alone, unless they are sure of what they are talking about. The phrenologist who restricts himself to the demonstration of the principle that certain formations of the head go together with certain manifestations of character ; the phrenologist who only talks of the physiognomy of the skull, regardless of what is underneath it, has at all events that advantage, that he is on his own and on perfectly safe grounds, which only a collection of contrary facts could upset, which method, however, our antagonists—wisely—do not employ. Illustrations can be given of the formations of the heads of timid and of careless persons,

of enthusiasts and sceptics in religion, of animal and intellectual types, etc. ; but when the character of portraits or of living heads is described, it is unnecessary to tell the audience how we arrive at our conclusions, unless we are prepared to defend them. The phrenologist who says for instance that the "organ" of conscientiousness is deficient, and the "organ" of acquisitiveness is over-predominant, has no means of verifying his statement ; any physician can tell his hearers that no such organs exist in the brain ; and even if the lecturer's arguments should be excellent in their way, it is no satisfaction to leave the audience to choose between two men, of whom one has recognised qualifications and the other has not. "Organs" exist only hypothetically ; we cannot demonstrate them by any recognised method ; least of all, with such boundaries as they have in those pictorial maps to which I have referred. They may be discovered some day, but the phrenologist of the present generation has no means of proving their existence to the satisfaction of those who rule in the world of science. I know only one phrenologist who has acted on the lines which I am thus defending, and who certainly could boast of having made more converts than many practitioners of a much greater reputation. He tells candidly that he knows nothing of the brain, and thus he deprives his medical hearer of his arguments. The physician—to upset phrenology—therefore, can only submit his own head for examination, a test which of course must always be in favour of the phrenologist, if he has any experience at all. I have met several learned men who have thus been converted by the practitioner referred to ; but who tell me that they have left so-called "lectures" of other men, if not with disgust, at all events unconvinced. Of course we know that the standard of education among phrenologists varies considerably, and that the better men cannot be held responsible for the lower ones who earn their livelihood perhaps on the sands of a seaside place. Allowance must be made for the fact that all practitioners, whether of phrenology or any other profession, look more at the commercial than at the scientific aspects of their enterprise, and I see less danger in them than in those individuals who—with a superficial knowledge of the subject—lecture on it, and use other men's ideas as their own. The reports of these proceedings do more to discredit phrenology than the former, for they have an air of science about them, whereas in reality they are gross mis-statements and defective arguments. It is from these sources that the anti-phrenologist derives his knowledge of the doctrine.

Gall's system may receive recognition ere long, and even

phrenology will have its day. But whereas the former has already some advocates of great standing who defend one branch or another of Gall's extensive work, the latter, though a profession, has not one man amongst its followers who could command a hearing for it among learned men. It is perhaps pleasanter to shut our eyes against this fact, but is it wiser? Certainly not. And what is the remedy? Raise the standard of those men who go out into the world to preach the doctrine.

A smattering knowledge of phrenology is easily acquired, but a command of the subject so as to inspire others cannot be gained either in twelve or twenty-four lessons. To understand Gall's system thoroughly, the anatomy and physiology of the brain and nervous system ought to be studied beforehand and up to date. To master phrenology, you require to know Gall's system and a perfect acquaintance with "philosophy" as taught at our universities. You may be a phrenologist without knowing either, but you are not likely to represent the subject at any scientific institution with the smallest amount of success. And what about heredity, the study of insanity and such subjects, which have a direct bearing on phrenology? No work of—say 1850—will do for that. Every year brings new facts to the fore; and if you want to be an advocate of phrenology—that is, of the science of phrenology, you must know these too.

Because phrenology is such a vast subject, Spurzheim before bringing out the doctrine ought to have insured its foundation. Great as the success was of Combe's "Constitution of Man," and thorough as his "System of Phrenology" is, neither of these works saved the subject from falling into oblivion. It was rejected on false grounds; the principles were not understood, for too little attention was given to general laws, and too little attention to physiological or pathological evidence. The rejecters were in their turn rejected. To-day the ground is free, but where is the advocate? Where is that man, scientist and philosopher, who is master of the subject both in its entire theory and in its practical application, and who could revive phrenology? The *Saturday Review* says it would be a thankless task, but let that deter no one who has the talent and ambition to fulfil it.

BERNARD HOLLANDER.

THE FOWLER INSTITUTE.

DURING the summer months the members of the Fowler Institute are holding their monthly meetings by invitation at Mr. Fowler's residence in Grove Park. The June meeting was held on Saturday, the 14th. In the afternoon a ramble in the country was taken, and after tea Mr. Coleman read an interesting paper on "Some Effects upon Character," which we print elsewhere. A discussion followed.—The July meeting took place on the 12th, when Mr. Ashby gave a most instructive discourse about bees, which was illustrated by microscopic slides, and also by bees at work in their hive.

PRIZE QUESTIONS FOR AUGUST.

1. WHAT faculties are stronger in man than woman ?
2. What are the principal points that must be taken into account when examining a head ?
3. Give in full the various combinations of combativeness with other faculties.
4. Name the sutures of the skull.
5. How many bones of the head and face are there ? Give their names.
6. Give the brain weights of Gall and Gambetta.
7. What phrenological organs correspond with Ferrier's physiological experiments ?

(Conditions same as in July.)

SANITY AND INSANITY.

THE same felicity in choice of subject and in selection of writer marks the eighth volume of the "Contemporary Science Series" as has attended the undertaking almost continuously from the start. The subject of insanity, no less than that of criminality, which was dealt with by the editor in the last volume, has undergone a new and searching investigation within the last dozen years ; and it would be difficult to name a topic of scientific research which commands

a wider interest among the mass of educated people. To meet this interest profitably and practically, Dr. Mercier's book,* despite its openness to certain objections, is in the main admirably fitted. The faults of his book, indeed, arise in large measure out of his very competence to handle the subject : that is to say, he writes with the authority and confidence of an expert, and, as able experts often will, he undertakes to lay down the law on very difficult and debatable points outside the strict sphere of practice, where a less accomplished and original expositor would rather seek to shun points of controversy. But as regards the phenomena and the diagnosis of insanity, and the scientific analysis and discrimination of its manifold conditions, Dr. Mercier's study seems, to a non-expert, to combine scientific value with popular instructiveness in a high degree. As he remarks in his preface : "With respect to this malady, the great majority of medical men are themselves in the position of laymen. They have not studied it. It was not included in their examinations ; it was a thing outside their curriculum—a thing apart, having little community of nature or similarity of character with the subjects of their professional studies." To these he offers a compendious scientific exposition ; and to the general reader he furnishes at once this and a much needed common-sense guidance on conduct. "Considering how common an affection insanity is," he remarks ; "considering that there is scarcely a family in this country that has not had at least one of its members more or less insane, it is somewhat remarkable that so little should be generally known about insanity." It may be hoped, and indeed predicted, that his own book will do much to remove such ignorance, and to break down the irrational tendency at once to regard insanity as a family disgrace and to shun the insane with an unsympathetic horror. "I have known ladies," says Dr. Mercier, "in other respects sensible and kind-hearted, refuse to sit at table with other ladies as well-bred and well-conducted as themselves, because the latter were unsound in mind." Such unwomanly and inconsiderate egoism will surely not in many cases survive a perusal of "Sanity and Insanity." It is just possible, on the other hand, that some unregenerated perturbation may at first be caused by Dr. Mercier's announcement that scarcely a week passes in which he himself does not take a party of lunatics to one or other of the London theatres, where his charges often chat normally enough with unsuspecting neighbours. He has in

* SANITY AND INSANITY. By Charles Mercier, M.B., Lecturer on Insanity at the Westminster Hospital Medical School, and at the Medical School for Women. With Illustrations. "Contemporary Science Series." London : Walter Scott.

his day gone through the average process of opinion. "I shall never forget," he writes, "the shock it was to me when I took office in an asylum containing about two thousand lunatics, to find not a single straw sticking out of a single head in the institution."

Dr. Mercier's method, it need hardly be said, is strictly biological; and the great value of his exposition lies in its avoidance of the unmeaning phraseology which used to enter into writing on the subject of mental disease. He tends to exaggerate, indeed, the backwardness of the study up till recent years. "It is an old observation," he remarks, "that a melancholy turn of mind never occurs without constipation of the bowels. But why these things should be associated together, what the link may be between them, is a question which not only has never been answered, but which, as far as I know, has never been asked. It has not occurred to any one that an explanation was desirable." Surely this is extravagant. Surely many men have not only asked the question, but tried to construct, however fantastically, a scheme of the physiological connection between the constipation and the brain trouble. And it is not quite clear how Mr. Mercier can consistently profess to look for the "link" or the "why" in the matter, seeing that in the course of his own argument he takes up, theoretically, a strongly agnostic position on the subject. He seems in one place anxious to mark himself off alike from the spiritist and materialist positions, as ordinarily understood. "The movements of matter and the phenomena of mind," he writes (p. 50), here apparently expressing a common objection to materialistic formulas, "are separated by a fathomless abyss. Betwixt the one and the other there is a great gully fixed, and neither can matter act upon or induce changes in the mind, nor can mind act on or induce changes in matter." His own formula is (p. 51) that the activity of the highest nervous centres *is attended, we cannot say why or how, (sic) by a mental state.*" And he proceeds to argue that "the mental changes can no more influence or alter the nervous changes, than the shadow can move the man; and the nervous system, or the body which contains it, can no more act *independently and directly (sic)* upon the mind than the man can pick up his shadow and throw it away." If then "we cannot say how (!) or why," what becomes of Mr. Mercier's strictures in his preface? The fact is, as his own words just cited show, he has not thoroughly sounded the metaphysical problem which he undertakes to dispose of. What do the words "independently and directly" mean? "To suppose," Dr. Mercier goes on, "that an action on the body can influence

the mind, *without changing the nervous centres*, is like supposing that a man can alter the shape of his shadow without moving his body." [In point of fact this can easily be done by altering the position of the light, but that is a trifle.] But who ever makes the supposition in the words italicised? The question is here suddenly evaded. We had before been as good as told that between the nerve centres and the mind there is a "fathomless abyss;" and yet Dr. Mercier goes on (p. 53) to explain "the secret of the connection between body and mind" in terms of nerve processes. The shadow-and-man argument, if it meant anything, meant that matter could no more affect thought in any way than the shadow could move the man. The shadow-and-man analogy, of course, is entirely misleading. There the man and the light are the necessary simultaneous conditions of the shadow, and we may with perfect fitness call them the conjoint cause of it. The shadow, on the other hand, is not a condition of the existence of either man or light singly. But to say that nerve processes are no more causal of mental states than is the shadow of the man, is merely to trip over a lop-sided metaphor; and, as we have seen, Dr. Mercier proceeds to confute himself. He would perhaps never have needed to do so if he had followed the old demonstration by Hume that cause and effect, so called, in all nature, are only invariable sequences or simultaneities of phenomena; and that a "why" is for human beings in the long run just a completed "how." That demonstration reduces to insignificance the conventional phrase about the "abyss" between molecular process and idea, by showing that there is just as much of an "abyss" between physical phenomena of which the casual sequence is undisputed. When we strike a match on a box we have a whole series of such "abysses"—in particular the "abysses" between the molecular motion of the chemicals and the phenomenon of heat, and between the vibration and the vibration in another medium which constitutes light. A study of Spencer's "First Principles," to go no further, might guard Dr. Mercier on this and cognate subjects against some unprofitable argumentation. His conclusions are mostly quite scientific in spirit, but his exposition is at times verbally inconsistent and confusing.

A similar objection applies to his definition of insanity (ch. iv., erroneously headed "iii."), and the definitions preliminary thereto. The chapter is an ingenious and able one—almost too elaborate, indeed, for such a treatise—and supplies many valuable critical tests; but it falls short of that unfailing vigilance of expression which is necessary to decisive logical

achievement. It contains, further, what seems to us an insoluble contradiction, calling for some explanation by the author. "An insane person," says the author (p. 130), "may . . . be in vigorous health, may . . . have his purely vegetative functions, worked by the lowest nervous arrangements, in good order." But he also declares (p. 134) that, "whenever the highest nervous arrangements are disordered . . . there is also disorder of the visceral and nutritive processes throughout the body. . . . In every case of insanity the nutrition of the whole body is disordered."

It would be unjust, however, to cause it to be thought that Dr. Mercier's book is in any practical sense vitiated by his treatment of disputable philosophic questions. As a practical exposition it is throughout luminous and instructive; and even to those accustomed to regard insanity from the biological point of view, there is something very impressive in the constant force of his demonstration of natural sequences. Some of his doctrines, as he forewarns us, are "in the position of being unaccepted;" but whether right or wrong, he is always acute and suggestive, having much gift of lucid statement as well as of scientific insight. Thus, in the course of his exposition of insanity, he gives us some extremely interesting views on heredity, and a very satisfactory physiological explanation of the evil results of continued inbreeding, which, however, includes a sensible defence of the marriage of cousins as being very rarely injurious. Among his professedly new doctrines is a theory, which, however, is hardly quite new, of the relative influence of the male and female elements in reproduction; one of a double circulation of nerve energy; and one of a "defect of nerve tension underlying melancholia." Considerable discussion will probably be aroused by his repeated reference of acts of self-abnegation or renunciation to development or perversion of sexual instinct, which he views as essentially a disposition to self-sacrifice. It is conceivable that this problem will be solved by a still wider generalisation. It is not clear why sexual appetite should be reckoned, on account of its energy-wasting tendency, a disposition to self-sacrifice, any more than is the appetite for excitement or alcohol; and if it is possible to explain the life of the nun in terms of "perverted sexual instinct," it is not so easy to explain in the same way the deed of the warrior who gathers a handful of spearpoints in his own breast to make a breach for his comrades. Dr. Mercier himself points to the suicide of the Chinaman who kills himself by way of revenge on his enemy's doorstep, and to that of people who wilfully injure themselves when in a rage—cases which seem

to need another than the sexual formula. As Dr. Mercier says, however, it is better that our knowledge should be erroneous than that it should be indefinite ; and whatever of error there may be in his prelections is eminently susceptible of correction in respect of the vigorous stimulus it gives to the reader's judgment. A more ably written and vigorously thought book on the subject of which it treats will not easily be found.

A LADY SENIOR WRANGLER.

THE sun is fast setting, I ween, over the day which considers that all women must be "blue stockings," and hence oddities of the race, if they attempt to stand their ground with sweet reasonableness in scholastic competitions. The eleven ladies who have this year contested eleven various departments of education—all of whom have stood at the head—have done more to prove woman's capabilities than scores of editorials or clever articles written in defence of the so-called rights of women in reaching forward for professional degrees. Miss Fleury's success in Ireland, at the Dublin University, has been no slight distinction, as she is the first lady who has held the first position in first-class honours since the examinations have been opened to women in that college. Another distinguished triumph is that of Miss Fawcett, daughter of our late Postmaster-General, who has out-distanced the so-called Senior Wrangler by 400 marks, though she realizes no substantial reward for her work in the form of a Fellowship. After a long struggle women have thus been admitted to our universities, and the same papers are placed before them as before the men. When will their names be published in the lists, and the honours and rewards of learning be shared with their brothers ? Wise people shake their heads, and conclude that however brilliant a girl may be, she can never stand the nervous strain of competitive examinations with her brothers. But Miss Fawcett has proved that a woman may actually pass the highest mathematical examination, "without nervous prostration, or the traditional wet-towel-and-teapot" arrangement, to which the male Wrangler is supposed to succumb. We are told by "one who is supposed to know, that she actually slept soundly every night, as soundly as ever in her life, when 'working up.'" She has accomplished at twenty-two what her clever father was unable to do when studying for the same examination, for he, though a Wrangler, was deprived of an entire night's rest owing to the excitement of

the contest, and did not therefore succeed in gaining a Senior Wranglership. At Cambridge, this year, when the ordeal drew near, Miss Fawcett "simply faced it, with the consciousness that she had done her best, and that worrying would only do harm."

That women can show extreme clearness and decision of method in mental work, will gradually cease to be considered conspicuous by its absence in a woman's character, I should hope, after the bright example we have in Philippa Fawcett. She has a Somerville cast of mind, and knows in tackling a subject or problem what she means to do, and does it. She generally sees the shortest way, and by having to alter but little of her work, she is able to gain on others who are more brilliant and rapid. It has been appropriately remarked that "it is not always the hare that wins the race," and Miss Fawcett more than makes up in method what others gain in speed with alterations. Hence her extraordinary superiority all through the difficult work of the Tripos. Every paper, says her biographer in the *Pall Mall*, was written with the same unhasting coolness and decision, this collectiveness of thought being one of her leading characteristics. In fact, in the regularity and self-control which have governed her work throughout, Miss Fawcett has offered a complete contrast to the conventional picture of the lady student whom Mr. Grant Allen and others—who think they know everything about women—have loved to depict, "as a hysterical, overwrought, and nervous being, who, after a few years of morbid study, prepares to sink into an early grave."

Among the many other inherited charms of this young lady's mind, is her father's and mother's strong interest in political and social economics, and her speeches on these and other subjects in the College Debating Society have always been markedly practical and to the point. Rhetoric is foreign to her nature, and clearness and cogency are the only qualities at which she aims. She possesses strong, active faculties, an original and fearless mind, and the habit of looking at the inside of things instead of on the surface.

Nor is she the only bright example at Cambridge we can point to in proof of the educability of woman's mind. Miss Ramsey, three years ago, passed her senior classic examination, and secured a place which it is impossible to beat; and Miss Scott, now a professor in one of the American Universities, who was eighth Wrangler in 1880, proves how unfounded is the assumption that "you ruin a woman's body the minute that you improve her mind." I think Bishop Barry need have no further fear about the girls at Queen's College losing

their privileges in their endeavours to secure what they look upon as their rights, if they all follow Miss Fawcett's example and that of her queenly mother.

In a recent paper read before the monthly meeting of the members of the Fowler Institute, the writer queries the point why women are called the weaker sex. As an effect upon character—and therefore upon their brains—he thought that tight-lacing had much to answer for. I was heartily glad that he was willing to express his common-sense view of the subject ; and when the honest-thinking class of men declare they have no admiration for small waists, then women whose brains are being injured by their tight-lacing will also begin to take a more enlightened view of the subject.

I have always endeavoured to point out in my lectures on health, that the amount of food which the human system can transform into work depends upon the breathing capacity of the lungs ; and that depends upon the amount of air which can be supplied for its combustion ; and that in its turn depends upon the wearing or not wearing of corsets. With a generous supply of blood, the proportion which can be turned in upon the brain is very variable, and must be capable of being largely influenced by habit. Hence the amount of intellectual work which can be done by a woman is within her own power to regulate to a much greater extent than is supposed possible. With Madame Antoinette Sterling and Mrs. Mary Davies, who lead the van of popular singers, as advocates of natural waists, and the noticeable change that has come over our college women who have largely given up the wearing of corsets, the custom will become more and more widespread. It would seem strange that any woman should care to pour into herself intellectual food at the same time that she carefully shuts off the draught of her furnace, and so prevents its utilization. When we have such leaders in the suffrage movement and medical profession as Mrs. Fawcett and Dr. Mary Garrett Anderson, the sterner sex need feel no jealousy that their rights are being trampled upon by a shrieking sisterhood; for these women stand to represent the party of thoughtful and reasonable women who regard the enfranchisement of their sex as an act of simple right ; and whether they are standing pleading the cause of their less fortunate sisters, or promoting the work of larger spheres for women, or encouraging the students of the School of Medicine, they stand distinguished alike for purity of motive, for logical common-sense, and for quiet, gentle, womanly sympathy.

Those who tremble for domestic accomplishments will be

relieved to know that Mrs. Fawcett, like her daughter, is a most expert needlewoman. They have helped the cause of womanhood—even more than by their speeches—by their influence, their tone, their personality, and sound common-sense. Women, Mrs. Fawcett admits, have more to do with the home, and it is the home which she desires to see more considered in our political life. Of the duties of parentage and the responsibilities of sex relationship, she has the highest and most uncompromising ideals; while anyone who has been privileged to hear one of Dr. M. Garrett Anderson's addresses to the students of the School of Medicine, over which she is Dean, will not have failed to realize how deeply her character is imbued with the earnestness which she realizes is necessary for women in the professions. "Surely such women are the salt of life, and it is well for the nation which can produce them. We could do with many more such women—brave, cautious, single-minded, and as true as steel."

J. A. F.

SOME EFFECTS UPON CHARACTER.

THE word character is derived from the Greek, and means "to make sharp," "to engrave."

The multitude of events which come to the knowledge of an individual during a lifetime, all leave an impression upon the brain, and are liable to influence the character. Many of these events produce such a powerful effect as to engrave themselves upon the mind, and thus produce distinctness of character; while others have apparently merely a passing effect, and are only recalled to the mind by the recurrence of a similar effect or idea.

We are born into this world with a certain degree of inherited constitutional quality, a particular combination of the temperaments, and a brain of a given shape, all of which may be considered as the seeds of our future character. Over these we, as offspring, have no control, and it is only by the present generation studying the best means to perfect character, that the future generations can and will be benefited—for mankind like land is to be improved with cultivation. Nothing has so powerful an effect over character as parentage, and although man recognises this fact with regard to animals, yet there appears to exist an idea that only Divine wisdom can improve the human race. Man has the power to comprehend those laws necessary for his improvement, and it is his duty to practically acquaint himself with them.

One of the principal objects we seek after in life is happiness, or, as Pope puts it—

“O Happiness! our beings end and aim!”

Happiness depends greatly upon ourselves, the habits we contract, and the circumstances of life which we allow to influence us. It is very essential we should be trained to a true form of happiness: not merely the acquisition of property, or the gratification of any one particular organ, or even the cultivation of the intellectual organs, for morality has more to do with happiness than mere intellect. Firstly, we must have a healthy body; and secondly, a pure mind stored with useful knowledge having for its basis justice and love. When these facts are more universally acted upon, life will become happier, easier, and longer than now, for whatever affects the body affects the mind. No human being can exist without increasing or decreasing the sum total of human happiness, not only for the present, but of every subsequent age of humanity. No one can detach himself from this connection. Everywhere his presence or absence will be felt; everywhere he will have companions who will be better or worse for his influence. We are thus forming characters for eternity both of our own and those of others.

Everything is being done now-a-days which science can invent for the prolongation of life; but, on the other hand, few comparatively bestow the same amount of trouble on the improvement of their characters as upon the preservation of their lives. This improvement is no doubt often neglected in consequence of ignorance of one's true character. We must first discover our faults before we can amend them, and none is better able to do this than the phrenologist. So many of us live for the sake of living, rather than to obtain as much pleasure as possible by the use and training of our several faculties. James Martinau says, “The mere lapse of years is not life. To eat, and drink, and sleep—to be exposed to darkness and the light—to pace round the mill of habit, and turn thought into the implement of trade—this is not life. In all this but a poor fraction of the consciousness of humanity is awakened, and the sanctities still slumber which make it worth while to be: knowledge, truth, love, beauty, goodness, faith, alone can give vitality to the mechanism of existence.” Not only is health essential for happiness, but also to allow the mind to manifest itself in a powerful and healthy manner. We notice in the writings of some authors and poets the evidence of this want of health. Pope, e.g., was sickly and deformed, and many of his writings exhibit a want of fire and a melancholy tone of expression.

The retention of health, like happiness, is greatly within our own keeping, and can be vastly improved by judicious cultivation. Health and happiness go a long way towards beauty : without these a naturally beautiful face is devoid of its best features ; but with them what a powerful effect may be had upon those subject to its reflection. Good health is to be enjoyed much more than wealth, but is less envied, while wealth is more envied and far less enjoyed. Closely allied to general health and its relation to character, is food, dress, fresh air, exercise, cleanliness, &c. To preserve health we must study these, and act in accordance with the climate and our conditions of life. There is but little doubt that the great amount of sickness found among Europeans who go to Eastern and various tropical countries, is caused by improper living. Alcohol is consumed in large quantities, and much more animal food appears to be taken than in this country, with but a limited amount of exercise. Few constitutions are able to withstand the strain thus put upon them ; on the other hand, if fruits and vegetables were used, which flourish in the majority of these districts, instead of so much meat food, their bodies would receive the natural and best food suited for that climate. The chamois climbs mountains, the duck dives into the water, and the squirrel inhabits trees—and why ? Because this is where they find nourishment best suited to them. Are we not therefore justified in concluding that the various kinds of food man meets with in different parts of the world are best suited to him in the climate in which they grow ? Even the enterprising American does not seem to appreciate this fact as fully as he should. The three meals daily, consisting principally of meat, both summer and winter, might be greatly improved by taking a lesson from the humble negro, who, during the hot months, delights to bury his head in a water melon. The Brahmins, who are vegetarians, enjoy a remarkable immunity from disease, and often preserve their vigour to an extreme old age—a proof that longevity is not necessarily incompatible with low latitudes. The more simple our food, the better it is suited to our natural taste ; but this taste is only too often perverted from mere childhood by rich unsuitable diet, and so the system is kept in an unnatural condition, which must consequently exert an unnatural influence upon our thoughts and actions. Essential as it is for us to study the quality of various foods necessary to maintain a healthy and vigorous body, we must also think of the quantity. The habit of over-eating is much more common than is generally supposed, and causes a deal of harm to the digestive system. Food should be taken in proportion to the amount of exercise,

either mental or physical ; and not merely to gratify inflamed alimentiveness. Many have formed a habit of eating to excess, more especially among men, and are not aware of the unnecessary work their stomachs are called upon to perform. Sleepiness after a meal is a pretty sure sign of having over-eaten. Food being intended to strengthen our bodies, should we not feel invigorated after taking it, than the reverse ? This habit, then, has a dulling effect upon all the senses, and so prevents the character exhibiting itself in its full force.

The subject of dress should be studied more from a point of health rather than that of fashion, which carries us to all sorts of excesses and absurdities. Chinese women compress their feet, the Flatheads their foreheads ; but the most civilized women in the world, the English and American, compress their waists. This deleterious practice, which is generally acknowledged to do great harm, although its existence is scarcely admitted by the weaker sex, is chiefly allowed to continue in consequence of men not turning their backs upon such deformities and encouraging natural figures. By the way, why should we have to say the weaker sex ? Is it not partly because of the continual pressure upon their vital organs ? Are women ordained by nature to be weaker than men ? In a lecture a few weeks ago, by Professor Virchow, on tight-lacing, he said "that the outward pressure of tight-lacing so surely affected the internal organs, that from the shape of a liver one could determine to what period of fashion the possessor belonged. Excessive lacing caused whole portions of the liver to disappear ; others grew abnormally, causing changes of the most vital importance to the patient." Some look upon tight-lacing as a public benefit : they consider it kills off all the foolish girls, and leaves the wise only to grow into women. This practice surely must have the effect of cramping a woman's character as much as her body.

Fresh air is of more importance to life than food ; it is very necessary therefore we should obtain a continual supply. A man breathes, on an average, 16 or 17 times per minute while at rest. At each inspiration he draws in from 25 to 30 cubic inches—that is, 400 cubic inches per minute, and nearly 14 cubic feet per hour. Dr. Parkes, the great authority on this question, came to the conclusion that a man at active work takes in three times as much air as a man at rest, which would give about 42 cubic feet per hour. Five per cent. of the oxygen of the air is removed in the lungs, and 5 per cent. of the carbon dioxide result of the combustion of a certain amount of carbon is given off from the lungs. Two thousand feet of air per hour is universally admitted by physiologists and

hygienists to be the least quantity which should be supplied per individual. If a room then contains but 1,000 cubic feet, the air must be changed twice every hour to keep it in a healthy condition. The effect of breathing bad air is not necessarily immediate, but it lowers our vitality, renders us liable to disease, and less able to use our natural powers. This should be guarded against by ventilating our rooms, and exercising the body in the open air, which has a very beneficial and stimulating effect upon the whole system. Habits of bodily activity are often the best cures for sickly states of mind. It has frequently been noticed with what ease and rapidity thoughts and ideas will flow when taking vigorous bodily exercise.

The human animal being the highest form of animal upon earth, is the most susceptible to education and culture, which should continue to exert an elevating effect upon the mind from the cradle to the grave. Education, in the common acceptation of the word, is generally looked upon as denoting those few years of an individual's existence given up to instruction in more or less literature and various accomplishments—which in men is used principally or entirely for making money ; and in the case of many women, having attained a certain measure of accomplishment, manners, &c., they consider themselves as finished like a picture, ready to be put in a frame and admired. The Grecian philosophers taught, "Know thyself ;" and when man is made more of a study, it will be appreciated that education is the drawing forth and cultivation of all the faculties of the human mind ; and, until these faculties are recognised, the present system of teaching must be upon a wrong foundation. Education cannot create powers, but may produce great results from our latent powers : virtues and talents can be brought out, and fundamental rules given us, upon which to work out a progressive education to the perfection of character.

In answer to a question put to Mr. Gladstone a few weeks ago, when giving evidence before the Flintshire County Council, he said :—" In speaking of technical education, I attach the highest value and importance to it ; but I always bear this in mind—that the main purpose of education is to deal with the mind, the youthful mind, not as a repository that is to be filled with goods like a shop, and then the goods to be taken out and handed over the counter, the shop remaining exactly as it was while the goods passed through it, but that the main purpose of education, so far as it can be made in that direction, is to make the human mind a supple, effective, strong, available instrument for whatever purposes

it may be required to be applied to. The wants of general education are absolutely indispensable."

Many teachers take themselves as models, forgetting their own imperfections, which they instil into their pupils, all of whom they endeavour to teach as if all were born alike and could receive instruction in the same way. The same may be said of parents whose children have inherited their excesses and weaknesses. Cautiousness may be large in both parent and child, and yet the anxious mother is ever training this already too active organ. As a healthy body and pure mind are necessary to happiness, which, as already stated, is one of our principal aims in life, our primary education should consist in a knowledge of how to live, which will bring us first to study the body and its workings, and then to the mind and its faculties. All progress in the way of education is carried on through one or more of the senses. These senses, therefore, should receive early training so as to prepare them for the reception of knowledge. Upon the occasion before mentioned, Mr. Gladstone said he was "strongly desirous for the promotion of physical and corporal education generally. He attached value to the training of the hand and eye, and in the training of the eye he had always had this feeling very strongly, that some branch or other of natural history deserved a higher place in the modern theories of education than it had yet obtained. There was no more perfect training of the eye than was given by the observation in early life of animals and plants. Perhaps he might say, knowing what a competition there was to teach all things that were desirable to be taught, that his distinct feeling was that in the education in higher classes of schools, within the last thirty or forty years, too much consideration had been given to modern languages, and too little to make boys observers of nature."

The sense of sight probably is the most used of all the senses in the education of the mind. How much better we can appreciate, understand, and believe a thing by seeing it than by merely hearing about it. Think of the amount of information gathered by observation, which is generally remembered much better than the facts received through the auditory nerve only, and yet still better when both seen and heard. What a different character any of us would have had had we been debarred the organ of sight. Much of the vast resources of literature must have been lost; although with this sense many read in the same way as they eat—*i.e.*, a quantity from which they receive but little nourishment.

The varied and beautiful scenes in nature all have an elevating effect upon the mind. Who can go to sea for the

first time without being struck with the grandeur of the mighty waves ? and how insignificant one is made to feel ! Travelling makes people think in a way they have never had cause to before, and thus we use faculties which are not called into play in city life ; fresh scenes, people, customs and habits are continually appearing, all of which help to educate and develop the mind. Those who have travelled extensively are expected to be good conversationalists, and it is generally an easy matter for them to become so, for the knowledge they have acquired must be varied and of an exceptional character ; and anything unusual is always eagerly sought after.

So much has recently been said by Mr. Fowler as to render much comment unnecessary here upon the subject of habit, which, we have learnt, has such a telling effect either for good or evil. Carlyle doubtless recognised its power, for he says : " Habit is the deepest law of human nature. It is our supreme strength, if also, in certain circumstances, our miserablest weakness. Let me go once scanning my way with any earnestness of outlook, and successfully arriving, my footsteps are an invitation to me a second time to go by the same way—it is easier than any other way. Habit is our primal fundamental law—habit and imitation—there is nothing more perennial in us than these two. They are the source of all apprenticeship, of all practice, and all learning in this world." Most of the pleasure derived from the habit of smoking is through the organ of sight, by watching the fantastic forms of the smoke, and not through that of taste ; in proof of this, blind men seldom smoke, and there is little pleasure in smoking in the dark. When carried to excess it is a great cause of deafness. Chewing tobacco must be the worst form in which it is consumed, and yet this is continually practised by many, especially in the States. Nor are the American women exempt from the art of chewing, but they substitute gum for tobacco. Among Eastern nations betel-nut is chewed by the natives in large quantities ; it acts as a sort of stimulant, and Europeans attribute this habit as being the cause of the emaciated appearance of the old nigger women.

Since no two heads exist which are exactly similar, to say nothing of temperament, etc., there can be no one religious sect equally suited to the whole community. Those who possess an intellectual and moral religion, and conscientiously act it out, are made better citizens thereby ; but religions, like everything else in this world—except the laws of nature —vary considerably, and consequently have varying effects upon the characters of those who follow them. Buddhism

for example, which is said to be upheld by about one-third of the human race, has a "creed essentially atheistic, the true Buddhist believing in the external existence of nothing but matter, which bears within itself the power of reproduction of being." Morality of a high and pure character is preached, and it is forbidden to take the life of even the meanest creature, nor do they eat flesh : thus leading a life purely vegetarian, together with an oppressive climate, makes them exceedingly mild and submissive in disposition.

Religion appears to have a stronger hold upon Asiatic races than upon Europeans. Forms and ceremonies are more numerous and carried to a greater extent, and religious mania is much more common. Men may sometimes be seen in India, who feel called upon to do penance, with their heads covered with ashes and one arm extended upwards—in which position it has probably been for years, until the flesh has withered away and the clenched hand has been pierced by the finger nails. Others prefer a different process : to thrust a padlock through both lips, lock it and then throw away the key. The religion of the Mahomedans, like that of the Brahmins, forbids the use of alcohol ; and this, no doubt, accounts in a great measure for the remarkable rapidity with which they are known to recover from wounds in the time of battle.

Among the remaining and numerous unmentioned influences upon character, marriage must not be forgotten ; although for reliable information upon this all-important subject, reference must be made to those whose experience enables them to speak with authority.

In conclusion, it may be stated, that since the character of man is our study, and the perfection of his character our aim, we cannot do better than follow the advice of Socrates, who said—"The way to gain a good reputation is to endeavour to be what you desire to appear."

G. BERTRAM COLEMAN.

PHRENOLOGY
PROVED, ILLUSTRATED, AND APPLIED.

IT is brought forward as an objection to phrenology, that an enlargement of the skull can take place only by the mechanical pressure of the brain, and that the brain is too soft a substance to produce such an influence upon the skull. This objection is fully answered by an appeal to that general law of nature which accounts for the gradual expansion of the skull as the individual advances in years, by

the analogy of growth and formation as displayed in all her works. Are not the gradual growth and formation of the wood and bark of the tree, both mutual and natural? And does not the same hold true of the hard and soft parts of the shell-fish, and of every thing analogous in nature? Can we conceive any thing more mysterious or difficult in this, than in any other operation of nature? Is there any thing more unaccountable in the formation and growth of the brain and skull than in that of the wood and bark of a tree? The clear voice of facts speaks in the language of demonstration upon this subject; and from its decision, there is no appeal. Not only does the whole head, which, of course, includes the skull, and all the various parts of the head, increase up to the age of thirty or more, but the form of the head changes more or less, "from the cradle to the grave."

In children the cerebellum is commonly very small. In middle-aged persons its proportionate size is greatly increased; and in aged persons, again diminished; and the skull adapts itself to this increase and decrease. The middle of the foreheads of children and youth, is, in general, extremely full and rounded, while that of men is generally depressed.

Nor is this the only class of facts bearing upon this point. Numerous instances of the increase of various portions of the skull, while other portions remained stationary, might be cited; yet, why should we consume time upon the proposition, that the external surface of the brain and skull, in general, correspond—a proposition which is not only a matter of observation, and which is demonstrated by almost every skull upon which we can cast our eyes, but which is already proved to our hands by such men as Cuvier, Magendie, Charles Bell,* and others of equal learning and authority, and, moreover, which is susceptible of physical demonstration?

It remains, then, for the phrenologist merely to ascertain what portions of the brain are employed to manifest the various faculties, and, also, what are the indications upon the skull of the relative size of these organs, (which, indeed, has already been done by the most critical and extensive observation,) and then he will have sufficient

* In Charles Bell's Anat. II. 390, we are furnished with the following passage. "Thus we find, that the bones of the head are moulded to the brain, and the peculiar shapes of the bones of the head, are determined by the original peculiarity in the shape of the brain." It is also added in a note, "I have seen one striking instance of the skull's decreasing with the brain. It occurred in an individual who died at the age of thirty-two, after having laboured under chronic insanity for upwards of ten years, and whose mental weakness augmented in proportion to the diminution of the brain and the shrinking of his skull. The diminution of his head in size, attracted his own attention during life." Cuvier is still more explicit upon the same point. He says, "In all mammiferous animals, the brain is moulded in the cavity of the cranium, which it fills exactly: so that the description of the osseous part, affords us a knowledge of, at least, the external form of the medullary mass within." Magendie says, "The only way of estimating the volume of the brain in a living person, is to take the dimensions of the skull," &c. Other authors might be quoted; but these are sufficient for our purpose; so that anatomists and physicians, at least, cannot, with any appearance of consistency, question this proposition: and no others have any right to do so.

data from which to determine even the *minutiae* of the character and talents, and of the various mental qualities, of any and of every individual.

In this connection may be mentioned the fact, that the thickness of the skull may be determined by its vibrations in speaking, the tones of the voice, &c.

VII. The history of the *discovery* of phrenology, furnishes ample demonstration of its truth. Like all the other exact sciences,† every portion of it was discovered, and brought to its present state of



DR. GALL.

perfection, entirely by induction—by an observation and a classification of facts. It originated with Dr. Gall, a celebrated physician of Vienna, who noticed, in the first place, a uniform connexion between full and prominent eyes, and a talent for committing to memory. By this happy circumstance, he was led to look for other signs of intellect, in other portions of the head, and, accordingly, when he ascertained that a certain servant-man was pre-eminent for his kindness and goodness, he took a cast of his head, and afterwards, the casts of several other persons distinguished for the same trait of character. He then made

† So many phrenological facts, all, like the converging rays of the concave mirror, tending to the same focus, all establishing and confirming the same general principles as the great law of nature, have been collected and classified, that, until their opponents, upon whom the burden of proof is thus thrown, explain these facts upon other than phrenological principles, phrenologists have an undisputed right to number it among the “other exact sciences.”

a careful examination and comparison of these several casts, and found, that, although they differed in every other respect, there was one protuberance, upon the upper part of the frontal portion of the head, common to them all.

The following is the method adopted by Dr. Gall in the discovery of combativeness. After collecting a large number of persons, he ascertained from them which were cowardly and which courageous. He then placed the former by themselves and the latter by themselves, and proceeded to examine and compare the respective developments of the different portions of their heads, until he ascertained, that, notwithstanding the great divergence of shape in other parts, yet



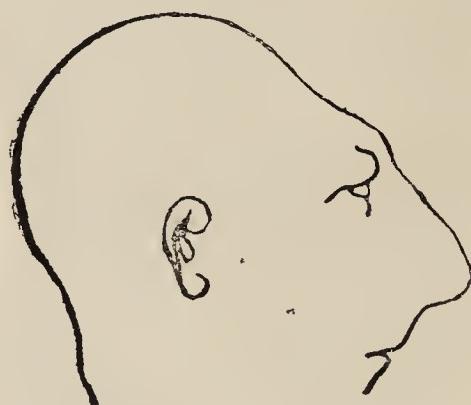
DR. SPURZHEIM.

the heads of the courageous ones all displayed a fulness and thickness just behind the top of the ear, and that the heads of the cowardly were all thin and depressed in that particular region. This discovery—as well as that of benevolence—was then applied to innumerable other subjects, until its correctness was fully established.

The same plan was afterwards pursued by Drs. Gall and Spurzheim, in the discovery of every other organ. They travelled through many countries in Europe, visiting the various hospitals, prisons, and other places where extreme cases of character might be found, and examined the heads of all the remarkable persons within their reach, and thus, slowly but surely, confirmed the discovery and location of about

thirty of the phrenological organs : and in this way they collected an amount of facts sufficient to fasten conviction upon every philosophical mind that will examine them. Thus, in the discovery of phrenology, nothing was theorized ; but every organ was discovered, and that by observing that certain manifestations of the mind are always accompanied by particular manifestations of the brain. Phrenology rests its claims to respect and belief upon the same grounds with the sciences of chemistry, mineralogy, botany, electricity, anatomy, and all the other sciences which are deduced from an observance and classification of natural facts.

VIII. The truth of phrenology is mainly supported by an appeal to the demonstrative evidence of *physical facts*. In this place an allusion can be made to only a few of the innumerable facts that have already been observed in support of phrenological science. Throughout the whole animal kingdom they abound ; but, more especially, and in the most striking manner, are they found to be manifested in that most important and wonderful of the animal species—man.



IDIOT.

The human head generally presents a large development of the frontal and coronal portions of the brain ; and, according to phrenology, the former of these portions is the seat of the intellectual, and the latter of the moral, organs ; but in the brains of animals these portions are almost entirely wanting, as their heads manifest scarcely any traces of these organs : and does not this perfectly correspond with the mental qualities of these different classes of beings ? The European race (including their descendants in America) possess a much larger endowment of these organs, and also of their corresponding faculties, than any other portion of the human species. Hence their intellectual and moral superiority over all other races of men. Franklin, Locke, Bacon, Browne, Edwards, Webster, and Drs. Richard and James Rush, and, indeed, all deep and profound reasoners, all original and powerful thinkers, without a solitary exception, possess really immense causality and comparison. Among all the heads examined and noticed by us, we have never seen one with so very high, broad, and deep a forehead, or, in other words, in which the reasoning organs are developed in so extraordinary a manner, as in that of Daniel Webster ; and where do we find his superior for displaying those faculties of

the mind which are imparted by these organs? (See comparison and causality very large.) Men of ordinary talent possess a respectable endowment of these organs. The Hindoos, Chinese, American Indians, and the African race, still less, but much more than the lower order of animals. Idiots, scarcely any; and the lower order of animals, none, or next to none at all.

The monkey possesses immense philoprogenitiveness, amativeness and individuality, and large secretiveness, combativeness, &c., and but very little language, causality, comparison,* and moral organs; which perfectly corresponds with the character of the animal. The crow has very large cautiousness and secretiveness, and large combativeness; the cat, the fox, the weasel, and all those animals which employ secrecy in catching their prey, possess large cautiousness, secretiveness, and destructiveness; the tiger, the lion, the leopard, and the panther, or the feline species generally, the bear, the wolf, the fox, the hawk, the owl, the eagle, and all animals which destroy other animals and live upon their flesh, possess, without an individual exception, large combativeness and immense destructiveness; while the deer, the calf, the sheep, the hen, the dove, the pigeon, and all those animals which eat no flesh, and are not savage in their nature, have small combativeness and very little destructiveness.

The dog has very large locality, and, accordingly, is able to pursue the deer for successive days through the deep forest, making almost innumerable turnings and windings, and yet, when he gives up the chase, can pursue a direct line to his home. The bear and the swine possess the same organ, and also the same faculty, in a remarkable degree. Secretiveness is so extremely developed in the head of the cat and the fox, that the protuberance assumes the appearance of a little horn, while destructiveness, though large comparatively, retires; but in the dog and the bear, destructiveness is much larger than secretiveness: and this exactly corresponds with the character of each. In the gambols of the kitten, and in the general disposition of the cat, we see a great deal more of secrecy and slyness than of destructiveness; but in the dog, we see the disposition to bite and tear in pieces without the use of artifice or cunning. In the head of the monkey, the robin, the bluebird, the partridge, and other animals which show an extreme fondness for their young, as well as in females generally, the organ of philoprogenitiveness is very large; while in the male dog, which is a stranger to this feeling, no traces of it are to be found. The strength of this feeling in the female bear, which, as is well-

* In the monkey, the brain, where language is located, and the portion of the skull beneath which causality is situated, are joined together, thus indicating a want of these organs. Their want of the corresponding faculties is equally striking. In the Indian and African races, these portions of the skull are separated perhaps one inch and a half; whilst in the miniature bust of Franklin, which is probably not one-tenth the size of his head, these same portions are separated nearly as far as in the full-grown Indian and African heads. The height of this miniature bust, from the external opening of the ear, is also nearly as great as that of the full-sized Indian head; which strictly corresponds with the moral character of each.

known, will fight so desperately for her cubs, corresponds exactly with the development of the organ in her skull.

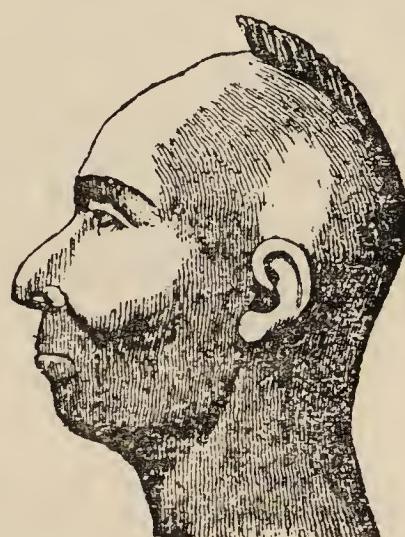
Facts which show the correspondence between the known characteristics of the various classes of animals and their phrenological developments, might be added to almost any extent, and their correctness demonstrated by our collection of the skulls of animals. Every menagerie in the country affords numerous and striking evidences and illustrations of the truth of phrenology. All animated nature teems with facts in its favour; and no striking instance has been, or, the affirmation may be ventured, can be, produced, through all the gradations and classes which compose the animal kingdom, from the worm up to man, and even through all the different races of men, which can show a discrepancy between the known and marked characteristics of an animal, and the phrenological developments and conditions of his brain; but, on the contrary, the coincidences between the two are invariably found to be the most striking and satisfactory. Inasmuch, then, as the phrenological phenomena, from one end of the chain of animated beings to the other, are uniformly found to accord with the characters of these beings, it follows that the same phrenological law governs all animals, and, consequently, causes this uniformity.

Yet, after all, it is the human species that furnishes the most varied, the most striking, and the most copious evidences and illustrations of the truth and principles of this science; because it is man alone that is capable of performing the greatest number, and the most complicated kinds, of functions—man, whose mind can grasp the great, and attend to the minute—man, in short, who is lord over all other terrestrial beings.

A great number of Indian heads and skulls, from many of the different American tribes, has fallen under our observation and inspection; and we have found, as a general feature common to them all, an extreme development of destructiveness, secretiveness, and cautiousness, together with a large endowment of individuality, eventuality, tune, firmness, and veneration, and sometimes conscientiousness; large approbateness or self-esteem, and sometimes both large; moderate acquisitiveness, benevolence, causality, combativeness, amativeness, and constructiveness: and, in the female, extremely large adhesiveness and philoprogenitiveness; but in the male, philoprogenitiveness moderate. This combination of organs indicates just such a character as the Indians generally possess. Their extreme destructiveness would create a cruel, blood-thirsty, and revengeful disposition—a disposition common to the race—which, in connexion with their small benevolence, would make them turn a deaf ear to the cries of distress. Their extremely large destructiveness combined with their large secretiveness and cautiousness, and smaller combativeness, would cause them to employ “cunning and stratagem in warfare, in preference to open force;” would give them less courage than cruelty; cause them to be wary, extremely cautious in advancing upon an enemy, and to lurk in ambush; and, with high firmness, admirably

fit them to endure privation and hardship ; and if to these we add large approbateness, we may expect them to glory in dark deeds of cruelty ; in scalping the fallen foe, and in butchering helpless women and children.

Their large conscientiousness would make them grateful for favours, and, according to their ideas of justice (which, in consequence of their small causality, would be contracted), honest, upright, and faithful to their word ; and these constitute the principal sum of their moral virtues : but when we add their high veneration and marvellousness, we find them credulous, religious, and superstitious. Their small amount of brain in the coronal region of the head, when compared with their immense development of the animal passions and selfish feelings, would bring them chiefly under the dominion of the animal nature of man, and render them little susceptible of becoming civilized, humanized, and educated : hence, the rugged soil which they present to the labours of the Christian missionary. Their very



INDIAN.

large individuality and locality, and full perceptive organs generally, with their large destructiveness, secretiveness, and cautiousness, would cause them to delight in the chase, and admirably qualify them to succeed in it ; whilst their small causality would render them incapable of producing many inventions and improvements, or of reasoning profoundly. Their small acquisitiveness would create in them but little desire for property ; and this would result in a want of industry, and leave them, as we find them, in a state of comparative destitution as regards the comforts, and even the necessaries, of life. The very large philoprogenitiveness of their females admirably qualifies them to protect and cherish their offspring under the peculiarly disadvantageous circumstances in which they are placed ; whilst the small endowment of this faculty in their males would cause them to be comparatively indifferent to their children, and to throw the whole burden of taking care of them while young upon the other sex. Their large tune, and very large destructiveness, would give them a passion for war-songs and war-dances ; and these combined with their large

eventuality would cause them to adopt this method of perpetuating their warlike exploits.

In Washington we examined the heads of about twenty Indians of the Cherokee delegation to Congress, in which we found the animal portion of the brain relatively smaller, and the human and reasoning organs much larger, than in Indian heads generally; and this perfectly harmonizes with, and accounts for, the fact, that this tribe is less savage, and more intellectual, than any other. Indeed, the phrenological developments of some of the half-breeds were decisively superior. Those examined from Indiana possessed a much larger development of destructiveness, and were less talented and civilized. Those, again, from the Osage tribe possessed a development still more inferior, and a corresponding character. A skull from a tribe of cannibals located near the isthmus of Darien, which was examined by us, presented altogether the worst phrenological developments of any skull we ever saw. In shape, it bore a strong resemblance to that of the monkey, except that destructiveness, secretiveness, and veneration, and, perhaps, conscientiousness, were larger. Of intellect, of course, these beings possess very little; and no description can adequately set forth their barbarity and brutal ferocity, no pen describe their degradation. And thus it appears that, in passing from the European race to the Indian, and from one tribe of Indians to another, we find, in every instance, a striking coincidence between the phrenological developments of brain, and the known traits of character.

(To be continued.)

Notes and News of the Month.

MR. B. HOLLANDER has changed his address to 37, Gloucester Place, Portman Square, W.

THE spring session in connection with the Fowler Institute closed recently. The autumn classes will commence early in September. Those wishing to join will please send in their names at once, when full particulars will be given.

MR. WEBB'S pamphlet, entitled "Phrenological Aspect of Modern Physiological Research" (as reprinted from the PHRENOLOGICAL MAGAZINE), is now ready, and may be had of Mr. Fowler, price 3d.

A STANLEY Book WORTHY OF THE NAME.—One of the most entertaining books published for many a day is "Heroes of the Dark Continent" and Complete Picturesque Africa, embracing the history

of Africa and its people for more than one thousand years, illustrated with 500 scenes, coloured plates, and numerous maps. Also, including the complete life of Henry M. Stanley and all his famous explorations and discoveries, including his last and grandest expedition for the relief of Emin Pasha. The entire work is issued in two large and beautiful volumes of 576 quarto pages each, or 1,152 in all. The book is having an enormous circulation, over 200,000 copies having been sold the first seven weeks. It appears to be making a profound impression upon the Christian world.

EVERY man has at times in his mind the ideal of what he should be, but is not. This ideal may be high and complete, or it may be quite low and insufficient; yet, in all men that really seek to improve, it is better than the actual character. Perhaps no one is so satisfied with himself that he never wishes to be wiser, better, and more holy. Man never falls so low that he can see nothing higher than himself. This ideal man which we project, as it were, out of ourselves, and seek to make real—this wisdom, goodness, and holiness, which we aim to transfer from our thoughts to our life—has an action more or less powerful on each man, rendering him dissatisfied with present attainments, and restless, unless he is becoming better. With some men it takes the rose out of the cheek, and forces them to wander a long pilgrimage of temptations before they reach the Delectable Mountains of Tranquility, and find “rest for the soul” under the Tree of Life.—*Theodore Parker.*

SOME men never reach their ideal, because they do not understand their constitution, their talents, their phrenology in fact. They have become infatuated with the idea that they could do just what they see another man (whom they admire very much) succeed in, and yet they have no calling, or, shall we say, talent, in that line. It is purely imagination. Then again, men have ambitions which the circumstances of life prevent them from attaining. A boy was put to a trade, but he hated it all the years he was in it, which was within a few years of his death. His ambition and his talents corresponded, for he was designed for literary pursuits, but either his phrenology was not taken into account, or the eager desire for “the almighty dollar” was paramount in the minds of the parents; at any rate, his life was sacrificed. This disregard for aptitude in work is the bane of so many lives. Would that every teacher as well as parent understood the importance of phrenology in the valuable rearing of talent.

Correspondence.

NOTES ON ARNEMANN :

(The man who attempted to murder Judge Bristowe.)

To the Editor of THE PHRENOLOGICAL MAGAZINE.

SIR,—Prior to his trial for attempted murder, I visited Arnemann several times in H.M. prison, Nottingham. Thinking that a few observations on his phrenological and physiological development might be of interest to your readers, I append particulars of notes taken at the time.

His organization indicated great activity—mental and physical. The muscular part of the motive, with a good degree of the nervous or mental, were the chief temperamental conditions. He would be liable to extremes of physical and mental action.

Was not surprised to hear of him committing suicide. When I read particulars of his sentence, I stated to friends interested “that he could not endure lengthy confinement.”

The brain was very unequally developed, being most prominent just above and behind the ears, in the lower part of the forehead, and in the coronal region.

He would be inclined to put a high estimate upon self, like to be the master spirit and take the control; very tenacious of his opinions and possessing much independence of character. Firmness, self-esteem, and conscientiousness being large, and cautiousness and secretiveness only moderate, would cause him to hold out for what he considered to be right at any cost. The executive faculties were larger than the restraining organs, hence he had great determination, courage, and energy; but lacked prudence, forethought, and tact.

The perceptive faculties were large. He was a keen observer of men and things, had a quick eye for proportions, a good memory for places, faces, and events, and would like to work by system and see things well arranged. Had also rather large constructiveness, hence would be practical and ingenious, fully alive to what was going on around him.

His reflective faculties were however much smaller. Would understand anything he could see and handle, but would not grasp principles and laws, would not reason well from cause to effect.

He was somewhat different to the ordinary type of murderers, benevolence and wonder being both rather large. Veneration was the least of the moral organs. Would have little reverence or respect for the “powers that be,” though his sense of justice or conscientiousness appeared large.

The social faculties were the smallest. Though agreeableness was large, and he could adapt himself to the society he was in, yet he was so positive in his likes and dislikes, that he would have few friends and many enemies.

On the whole he would be a man likely to be much misunderstood. More reasoning power in the intellect, more veneration in the moral organs, and more prudence and reserve, would have made a more harmonious character. Had he consulted a capable phrenologist in his early days, he would have pointed out his weak points, advised him what to do, and perhaps have prevented him going to such extremes.

I am, Sir, yours faithfully,

G. H. J. DUTTON.

A PHRENOLOGICAL LITERARY UNION.

To the Editor of THE PHRENOLOGICAL MAGAZINE.

DEAR SIR,—I venture to suggest through the columns of the MAGAZINE the advisability of forming a literary union among educated phrenologists. This might be accomplished by a committee of the Council of the British Phrenological Association, or by some one indefatigable and clear-headed phrenologist in London.

All phrenologists in London and in the provinces might readily co-operate ; and in this endeavour we might especially invite the co-operation of non-professional phrenologists, men and women who love the science, and who can write about it without being charged with *ulterior* aims.

The increasing popularity of phrenology, the revived interest in the subject in least likely quarters, the work done and doing by the British Phrenological Association and the Fowler Institute, by lectures, publications, and correspondence, &c., show in which way the psychological wind is blowing.

Last, though not least, of the indications of phrenological advance, are the attacks made upon the science by medical men. Dr. Wilson in the east declares he is like “a pelican in the wilderness,” and Dr. Allinson in the west avers he is like “a sparrow on the housetop,” and, concludes the liturgy *omnes*—“Phrenology is humbug.” Like others of their class they decline fighting in “the open ;” they are either unable or unwilling to accept our challenges. A Literary Union would cause these and others to “put up or shut up”—nay, would do more : open the eyes of indolent, albeit omniscient, editors to our unity and strength.

We have the basis of our Phrenological Literary Union in the British Phrenological Association and the “Register of Phrenological Practitioners.” In these, at least, we have the pick of the phrenological profession. Others might be invited to join, and to give their services “without money or without price ” to our good cause.

Membership of the Union should be obtained without fees ; all we ask is—work. What kind of work ? In the majority of cases only a letter—temperate, strong, and scientific—to the editors of papers and magazines which have contained, or are publishing, articles antagonistic to phrenology. One volunteer is worth ten pressed men. Who is

ready and willing, let him step to the front. I see Messrs. Webb, Warren, Melville, Stooke, Dr. Eadon, Hollander, and a few others have engaged in the work already. May we not do better by going about the matter in a more organised way?

For a trifle, the Press agencies would send cuttings of all attacks upon phrenology to the Secretary of the Phrenological Literary Union in London. The Secretary then would post certain cuttings to certain members, and laconically direct them to "write and pass on" to nearest phrenologist to take up the parable—and so on. Thus ten or twelve letters dropping in upon an editor would tell their own tale. Those who are willing to help could intimate their willingness to the President of the British Phrenological Association, or Recording Secretary, or myself, and, in due time, such a Union may become a practical possibility.

I am, Sir, yours truly,

Combe Lodge,
Esplanade, Rothesay.

JAMES COATES.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

JOHN is truly masculine and well proportioned, comparatively strong and long-lived. He has an executive brain and a good practical perceptive intellect, has talent for a mechanic, either as a carpenter or engineer. He is fond of music, and has a full development of imagination; is naturally methodical and systematic. He has a marked degree of self-respect, and is not wanting in ambition and aspiration. He is social and loving, and is highly adapted to married life. The chances are that he will live to a good old age, probably over eighty. He does not appear to be specially defective in brain-power, but can improve much by studying, talking, and public speaking.

LUCY (Hafod) has a high development of the vital and mental temperaments, is decidedly social, domestic, and has a friendly, affectionate spirit. She has more than ordinary power to go through with trials, and will prove herself to be plucky in times of danger, and prefers to be occupied rather than to live an idle life. She has the

qualities for industry and economy, is naturally methodical and systematic. She knows how to keep her own secrets and take care of property. She is practical, energetic, economical, and sagacious, she learns by experience and observation. She is well adapted to the sphere of a wife and mother. The indications from the photographs are, that they will live happily together in wedlock, especially if there is devoted love on both sides. There appears to be no reason why they are not favourably adapted to each other.

B. P. M. has a favourable temperament for action, both mentally and physically. He is able to turn off work with despatch, to decide on matters promptly. Has a strong, distinct will, is liable to be hasty to decide upon matters, and finds it difficult to alter when he has decided. He is respectful, kind, and noble, but has scarcely restraining power enough, especially when excited. He has great powers of observation and a decidedly practical intellect. He is quick to see, good to remember business transactions and the result of experiments; very apt on criticising, noticing discrepancies and inconsistencies. His power of illustration is good, he comes right to the point in conversation, is liable to be too direct and personal, especially in a debate. He will do in a business which requires nice discrimination. He would like to be a manager of men, for he has a strong desire to study character, and to become acquainted with all kinds of dispositions. He has none too much tact and management. He depends more upon his sagacity, force of character, and strength of will, than he does on his prudence and restraining power. He has great power of endurance, can bear up under severe trials, and go through severe surgical operations if necessary. His chances of long life are favourable provided he lives prudently, and does not try to do two days work in one, for he is somewhat in danger of over-doing. His wife is very prudent, cautious, thoughtful, systematic, kind-hearted and affectionate; the boy has a splendid head, as near perfect as can be, and only wants proper care and management to come into a fine man, a scholar, writer, and critic.

P. S. B. has a predominance of the mental temperament; is more gifted in thought and invention, or constructing arguments and forming sentences, than he is in doing ordinary work where strength is required. He may be entirely healthy, but will need to take care of himself in order to continue to be so, for his brain is rather too large for his face, and the mind predominates over the body. An intellectual sphere of life will answer his purpose better than one of hard labour. He has quite an original cast of mind, is much interested in philosophical speeches, is in his element acquiring knowledge and dispensing it to other people. He appears to have artistic ability, to contrive ways and means, to copy, draw, and design. His top head is larger than the basilar brain, hence he has more sentiment, sympathy, and spiritual tenderness than he has animal impulses. He would be better balanced with more perceptive power and practical talent. The lady is characterised for sincerity, integrity, and straight-

forwardness of mind ; has good perceptive power, is practical in her judgment, is alive to what is going on around her, and has good powers of discrimination ; is not very versatile in manner, does not try to be witty or to mimic, but she possesses fair ingenuity, a favourable degree of form and method ; is particularly good-hearted and respectful, but may at times be impulsive, and allow her feelings to have too much sway, for she does not appear to have a cautious, timid, or cunning disposition. She will think for others and take pleasure in doing good. There is no reason why there should not be harmony in the parties as husband and wife—first, because there is no apparent antagonism in their natures ; secondly, they are both of the peace-making kind, and possess a generous, social spirit, rather than a selfish one. If they love each other without an effort, and are drawn to each other naturally, it is an auspicious sign why they should carry out that idea and marry ; but if selfishness were at the foundation of their love, it might be otherwise. I see no reason why they should not be happy in wedlock.

REV. B., (Cam.)—The likeness of this gentleman indicates more strength and substantial force than activity or show. He requires considerable motive to call him out, but his organization indicates more than an average amount of character. He should be known among his friends for the following qualities of mind ; first, he is practical in his judgment, he accumulates knowledge readily, has a scientific cast of intellect ; he is a close observer of men and things ; gathers his information more from observation than from thinking. He is quite qualified to tell what he knows, is a matter of fact man, always in earnest, means what he says ; not specially brilliant, witty, or imaginative, but very apt in his powers of description and analysis ; is intuitive in his perception of truth and comes directly upon his subject, and does not deal much with preliminaries ; is characterised for an elevated tone of mind, is capable of exerting a distinct moral influence ; is firm, steady, persevering, manly, respectful, and mindful of superiors and sacred things. He is no trifler, he is not simply a religious man for the occasion, but he possesses a tone of mind that is adapted to that sphere of life. He is diffident and does not push himself forward. He does not appear to be particularly forcible and executive. A little more promptness and off-hand talent would enable him to appear to a much better advantage, but he wears well ; those who know him the best, put the highest value upon him. He has strength of constitution, will be long-lived, and capable of doing substantial work. He has more than an average amount of ambition, which is a powerful stimulus to him as a public man. When warmly waked up to a subject, he talks with some fluency, but he is not a great talker under ordinary circumstances. He will make but few mistakes, will generally succeed beyond his own expectations, and his friends will increase and his enemies diminish.

THE
Phenological Magazine.

SEPTEMBER, 1890.

MISS FAWCETT.

MISS PHILIPPA FAWCETT, the lady Senior Wrangler, is twenty-two years of age, and is remarkably unlike the ideal lady student. Neither in dress nor habits has she the peculiarities usually associated with the "clever" young woman. She is "not too emanci-



(Published by Permission of J. Owen, 29, Catherine Street, Salisbury.)

pated to be an expert needlewoman, with a nice skill in embroidery," and "has a most freshening and refreshing sense of humour." She is very self-possessed, and, in contrast even with her father, faced and went through the examination without any disturbing excitement. During her studies, we

are told by one of her friends (in *The Pall Mall*), she made a rigid habit of going to bed at eleven, and getting up at eight, and slept soundly, and at the end of the examination did not feel tired.

The general mental and physical organization of this lady indicates availability. She has the power to use all her organs and functions to a very good advantage. She is naturally strong in body, and has an excellent muscular condition. If she follows her own inclinations she is particularly fond of physical exercise, doing something that requires strength. She works in body and mind with very little friction, consequently ought to be easy and graceful in her movements. There appears to be no condition indicating chafing, restraint or impediment. She has a fair balance of face and brain. One special gift of her mind is desire and power to acquire knowledge. She is particularly qualified to learn by seeing, and does not forget what she sees. She should exhibit a superior faculty to tell what she knows, has done, and seen. The central part of her brain is superior to the brain on the side of the head, which indicates the essence of the mind, for the faculties at the side of the head aid to give force, tact, prudence, and imagination ; while the centre brain aids in giving intellectual power, moral stamina, presence of mind, and domestic feeling. She is not particularly excitable, or carried away with fancies ; not so overcome with sensational subjects as to lose her presence of mind ; but she looks upon everything in a practical, utilitarian, common-sense kind of way.

Her head is uncommonly high, which gives exaltedness of mind. She does not care so much for trifles, novelties, and extravagancies as many ; from a child she must have been anxious to improve herself, and make the most of her time, opportunities, and talents.

She is mirthful, without being particularly gay, witty, or given to laughing. She acts very much as she feels ; she does not put on airs or assume a character one day, and change the next, but one act of her life harmonises with another. All her perceptive faculties are large and give her ability to acquire varied knowledge. She is broad between the eyes, which gives her consciousness of forms, shapes, and outlines ; is large in size, which gives her knowledge of proportions and fitness of parts ; weight is also large and aids greatly in giving her balance of power in walking, or in understanding the proportions of force and resistance in mechanics and mathematics. She has remarkable powers of comparison ; is very apt in seeing the relationship of things, the adaptation

of one thing to another ; hence she has good powers to describe and to apply principles. Truth comes to her in a direct manner through her intuitive power. She does not need to spend so much time in investigating a subject and working it out by figures or thought, but the intuitive element of her nature enables her to go directly to the subject ; hence she has very few preliminary remarks to make, but says what she has to say at once, and then stops.

She appears to have an unusual knowledge of place, and should have learnt geography without any difficulty. She would excel in the study of astronomy ; this same power would assist her in drawing, making, and copying things she sees.

Eventuality appears to be large, giving her a very active consciousness of events and experiments, hence is remarkable for carrying things in her mind. She readily recalls her studies, and retains in her mind what she has once learned. This tenacity of memory and power of association are remarkable gifts of hers. She is a true child of nature, with very few airs, not disposed to assume character, or make believe things, but she has an excess of ambition, manifested in a very quiet way within herself. She is determined to be at the head, and nowhere else, but in her general appearance she would act as though she took everything easily, and did not exert herself. The crown of her head must be fully developed to give presence of mind, sense of character, and ability to command respect.

Firmness has a powerful influence in adding to her ambition, still obedience, respect, and humility are very modifying qualities of her mind. Sympathy and catholic goodwill for other people is a very prominent element ; she would sooner help a poor body that could not help itself than display her generosity on wealthy people. When she starts to do a thing she will stop at nothing ; she will plod, persevere, and go through with trials and difficulties to gain her end ; in fact, she is really plucky, and does not intend to count the cost in labour when she starts to do a thing. She has rather a combination of powers ; few possess so much power so completely regulated and brought to bear on a given purpose as she has. She does not appear to have much fear, timidity, or irresolution : if there were a lion in the way of her discharging her duty she would still go ahead, for she is quite cool and self-possessed in times of danger. She is one who does not deceive. She makes no pretensions, is not at all affected in her manners, but simply acts out her nature just as she is, and she will continue to do so all her life.

MRS. HENRY FAWCETT, in her early days, was a remarkable girl, in a quiet village, and has proved herself to be a remarkable wife and a wise and proud mother. Before all things she is a woman—a woman whose sole purpose is to raise others and to help them in the great struggle of life, a woman in all that is refined and lovable, in quiet grace and dignity, never more forceably shown than when pleading for some of those in need. It is her earnestness of purpose, and the evident "making for righteousness," born of her intensely strong convictions, that makes her foremost in the ranks of women to-day.

MEN AND WOMEN OF OUR TIMES.

OF course, everybody knows MR. AUGUSTUS HARRIS more or less. The manager of Drury Lane Theatre is also a prominent Freemason, and a member of the London County Council, and it is rumoured that his ambition will not be satisfied till he reaches the House of Commons. Mr. Harris, who is a member of no less than five City companies, has now been lessee of Drury Lane for eleven years, and has succeeded where several able predecessors had failed. His father was for many years stage manager to Mr. Gye at Covent Garden Theatre. All men act in one drama during their lifetime.

MR. WHITELEY started business in Westbourne Grove in 1863 with two young ladies and an errand boy. This was the nucleus of the present business. His first accidental visitor, on discovery that she was the first customer, offered up a prayer for the success of the undertaking. Mr. Whiteley himself tells this story.

It is worth having your birthday remembered every year like MR. SPURGEON'S, whose 56th celebration at the Orphanage brought no less than £1,800 to the funds of the institution. This is an earnest and hearty expression of enthusiasm.

According to MR. EDISON, "poor old England is nowhere" in the matter of electric traction. The fact is, Mr. Edison has carried his country years ahead of every other country.

SIR MORELL MACKENZIE, who is going to the United States in October, to deliver fifteen lectures, is, according to the Yankee papers, to get about \$10,000 for the series.

BROWNING was interested in humanity, of whatever race, or age, or clime. Those who believe in the doctrine of heredity will trace the origin of this to the poet's remarkable genealogy. His father was a Londoner, his mother a Scotch-woman; while his maternal grandfather was a German, and his paternal grandmother was a Creole. "Never say of me that I am dead," Browning once said to a friend. His faith in immortality was so strong that he never had any fear of death. His best education he received from his father and mother at home. "Italy," he used to say, "was my university." He was the subtlest asserter of the soul in song, the greatest poet since Shakespeare.

WISSMANN is the hero of the hour in Germany. He is a zealous, pushing organizer, and on foreign soil, without much



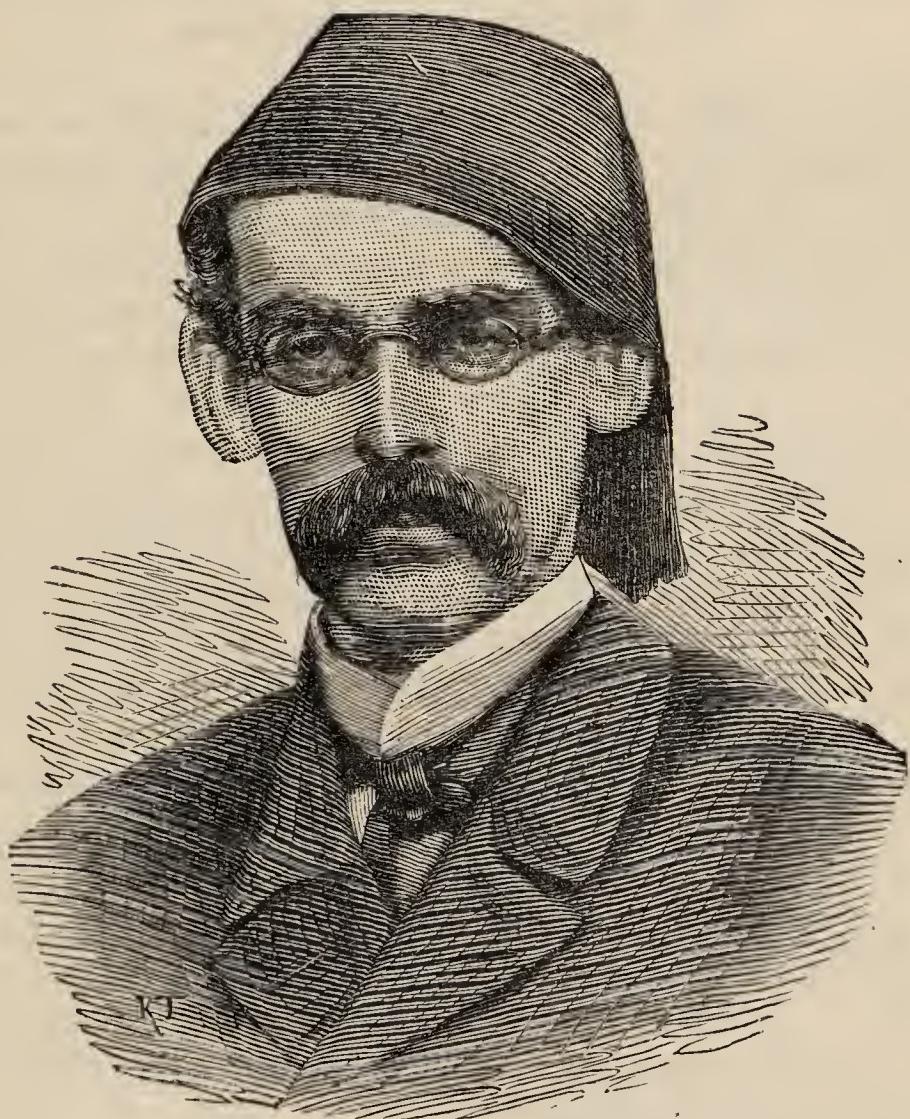
preliminary experience, he has created the first German army of native black troops, and has inspired chiefs and tribes of African blood with an awe for the greatness and power of Germany. Though he was placed at the head of the German African experts, no one knew he had the capabilities that would develop military and political gifts of the first order.

Even his most intimate friends never imagined that he would turn out to be an organizer. Hugh Zoella, the African geographer, says that "if Wissmann had told me that within twelve months he should have organized an army such as East Africa had never seen, for the winning back of East Africa to the Germans, I should have laughed in his face." The only man he thinks at all comparable with Wissmann is Lord Napier of Magdala ; and even that great organizer, he concludes, does not equal Wissmann, because the latter has had to be so exclusively self-dependent. But who would doubt his power or talent, to look at his head ?

The welcomes given to MR. STANLEY are no doubt a kind of recognition of his capabilities as a leader and explorer, and an acknowledgment of his discoveries, more especially of that great and fruitful land he wishes us to secure—for Emin Pasha, whom he went ostensibly to rescue, but who only after great persuasion consented to be rescued at all, is now almost forgotten. But while we thank and praise Mr. Stanley for what he has done, we trust, nevertheless, his work on behalf of civilisation and humanity is not yet finished. No man is better fitted, no man would receive more encouragement and help than Mr. Stanley, if he could be induced to head a crusade against African slavery. His present triumph may prove ephemeral ; even already adverse criticism is not wanting as to his designs or projects. But the suppression of the slave traffic in Africa would be a deed which few would or could undertake with any hope of success, and still fewer have the opportunity given them of achieving.

We find from Stanley's book that he had pictured EMIN PASHA as a hero ; which, as men form their heroes, like their gods, in their own mould, means another Stanley. But, in fact, the two men were utterly unlike and unsympathetic. When Stanley's expedition set out to face the terrors of the forest, each man, he says, formed visions of what lay before them : "Mine were of that ideal governor in the midst of his garrisons, cheering and encouraging his valiant soldiers, pointing with hand outstretched to the direction whence the expected relief would surely approach if it were the will of God." Stanley, we thus see, had looked for something melodramatic in Emin ; but he found only a very quiet and very undecided beetle catcher. Emin had some qualities which Stanley appreciated, which serve to demonstrate a unique character, and to show that he possesses talents rarely seen in those who select Africa for their field of labour. He has taught the natives to weave their own pieces of cotton, to

make their own coarse but strong slippers and shoes. He keeps his steamers and boats in good condition, he manufactures oil suitable for the engines, and keeps excellent sanitary arrangements for cleanliness and order at the stations under his charge, and secures the regular and ungrudging payment of corn tribute twice a year by his negro subjects. What Stanley criticised in Emin was that he was more of a man of science, than a man of action :—“ The time had come to begin a forward movement. The Pasha was devoured to



augment his bird collections. I knew he was an ardent collector of birds and reptiles and insects, but I did not know that it was a mania with him. He would slay every bird in Africa ; he would collect ugly reptiles, and every hideous insect ; he would gather every skull until we should become a travelling museum and cemetery, if only carriers could be obtained. Now, all this made me feel as if we were engaged in a most ungrateful task. As long as life lasts, he will hold me in aversion, and his friends, the Felkins, the Junkers, and Schweinfurths will listen to querulous complaints, but they will never reflect that work in this world must not consist entirely of the storage in museums of skulls, and birds, and

insects ; that the continent of Africa was never meant by the all-bounteous Creator to be merely a botanical reserve, or an entomological museum." Stanley's onslaughts on poor Emin for his scientific pursuits is a curious instance of the way in which masterful men expect everybody to be cast in one mould, and that mould their own.

"ORION."

THE PSYCHOLOGY OF PHRENOLOGY. BY NICHOLAS MORGAN.

PHRENOLOGY claims to be a science of mind as well as a science of character. Are these claims justified by fact ? It seems to me, that the evidence sustains the latter, and establishes the principle involved ; but as to the former, there are reasonable grounds for doubt. At the best, phrenology forms but a part of the basis of a true mental science—the greater part it may be, yet only a part ; and this fact ought to have been clearly shown and placed in the front rank, but, on the contrary, it has been kept in the background, and seldom or never mentioned. This, however, is not the only defect in the system, for the psychology of phrenology has yet to be written.

Possibly this statement may startle some of the followers of Gall, and give offence to others. Be it so ; truth often offends. Heated partisans do not take kindly to cooling processes. Self-confident zealots do not like to be tripped in the race by the stumbling-stone of doubt. By such, the slow, yet sure pace of thought is pronounced weakness : calm, yet comprehensive, clear judgment is called timidity, and incisive logic, captiousness.

The other, the primary part of the foundation of the science of mind is consciousness, and the tests of its soundness are self-examination and discrimination.

Much harm has been done to phrenology by neglecting to recognise consciousness as the primary fundamental principle of psychology, and this is a natural outcome of partisanism. When Gall made his discoveries known, consciousness was held by the philosophers of the old school to be not only a part of the basis of mental science, but the whole basis ; and the followers of Gall appear to have gone to the other extreme and ignored it.

That consciousness is the primary basis of psychology, must be so clear and distinct as not to require more than a statement of the fact. Deprive a man of consciousness, and you transform him to a piece of mechanism—a living death. He

would be incapable of feeling hunger or thirst, heat or cold. Pain and pleasure, joy and sorrow, would be unknown to him. Yet his system might be convulsed with alternations of these states ; but phrenology would tell him nothing of the mental and physical operations. Expression, the natural language of the soul, might speak in trumpet tones of his condition ; but phrenology would be silent. Then let consciousness have fair play, and take her proper place in the sphere of mind. Why should she be either ignored or dethroned ? Let us study her nature and function, and pay due respect to her revealments and teachings.

The psychology of phrenology is in a rather crude state, and needs refining ; and the definition of the functions of several organs is far from satisfactory. This does not simply apply to the crafty efforts of the plagiarist, who not only steals, but mars his plunder by vain attempts to give it the appearance of originality, but, unfortunately, it applies to the finished compositions of Spurzheim, Combe, and other authorities.

The organ of individuality is defined by Spurzheim as follows : "I speak under the name individuality of the faculty which recognises the existence of individual beings, and whose activity and presence are denoted by substantives in language. I acknowledge that objects are inseparable from their qualities, and that these constitute objects ; but I think it possible to conceive an existence or entity without knowing its qualities, as God, the mind."

We have here from a remarkable man a very remarkable definition, and an equally remarkable qualification ; so exceedingly remarkable, in truth, that it is almost inconceivable how those passages could have dropped from the pen of one so able, acute, and discriminative.

In criticising this definition, we should bear in mind that a faculty is an individual, unresolvable property of the mind, which manifests certain phenomena, peculiar to itself alone, by means of a cerebral centre, called its organ. Further, bear in mind the phenomena of one faculty should be as distinct from those of every other faculty as sight from hearing, and touch from taste.

Then note that Spurzheim says : " Individuality 'recognises the existence of individual beings,' though it cannot discern their qualities. That is to say, it recognises an object—a tree, for instance—in bulk, while, at the same time, it has no perception of dimension, nor of form or colour, or other quality."

I remark that the author attributes to the faculty impossible powers, and he tries to explain away the difficulty by an

absurd conception. If we abstract from the mind its qualities or attributes—that is, feeling, thought, and volition—what would be left? Nothing whatever.

Combe adopts Spurzheim's definition, and amplifies it. He says: "It (individuality) gives the desire, accompanied with the ability, to know objects as mere existences . . . and aptitude for acquiring knowledge of details. . . . It enables an artist to give a definite character to his conceptions, and confers on him a capacity for attending to details."

My contention is that it is impossible to know objects as mere existences without a knowledge of their qualities; and that individuality not being capable of recognising external qualities, it cannot by itself acquire a knowledge of objects as mere existences. Then as to the capacity, Combe attributes to it the conferring on an artist details, but has left us to surmise the kind of details referred to. I contend they cannot be of form, or size, or colour, and these are most important details in a painting.

Individuality, probably, has the capacity of inciting the faculties to action that perceive these details, but it cannot give what it has not got, and, as it does not possess the power of attending to those details itself, it cannot confer it on others. Moreover, if it had such a capacity, it would be an anomaly—a violation of the law—one organ, one function, which pervades the whole of nature.

Dr. Donovan took the same view of the function of individuality as Spurzheim and Combe. He was a thinker of no mean order. He had a great brain, a fulness of knowledge of phrenology, and a large experience as a manipulator of heads, and has left the world a suggestive and otherwise useful book on the subject as a heritage. Yet, notwithstanding, he erred with respect to the function of the organ in question even more than Spurzheim and Combe.

In his "Handbook of Phrenology," page 55, he writes: "All external objects, no matter of what kind, have the same physical properties. They have form, size, weight, colour, order, and number. These are their positive attributes: they form their whole. . . . Individuality is the sum of these attributes—their whole, which composes an individual object, dead or living, a thing, and this thing—this object, this elephant, mouse, house, ship, no matter which—is taken cognizance of, made into a whole, finished, completed by the organ of individuality, the unifying, one-is-ing, completing organ."

This is certainly straightforwardly put, and forcibly expressed. The author is highly pressed with the force of conviction, and impregnates every word with big brain-weight.

These are admirable qualities, but they are badly marred by palpable errors of definition.

The author sets the one-organ, one-function rule entirely aside, and puts the organ of individuality forward as the embodiment of about half the faculties of the mind. He represents it as the sum total of all the quality, perceiving, constructing, combining, refining, and one-is-ing mental powers! He also writes : " Individuality analyses, or takes asunder, separates the separable. It synthesises, or puts together into one, the separate ones, as in the letters of a word, or the words in a sentence. If it be active in a person, he can tell what kind of eyes, nose, mouth, skin, hair distinguishes any one whom he may have seen."

According to Dr. Donovan, then, the faculty of individuality performs a number of functions. (1) It takes to pieces ; (2) it puts together ; (3) it discriminates the difference between things ; (4) it distinguishes one thing from another ; (5) it scrutinises every feature of both sexes, and remembers each ; (6) it being, as he says, the sum total of the six perceptive faculties mentioned, it must possess the properties and functions of each, which, when added to the five preceding, make eleven ; but these do not by any means complete the number of functions this extraordinary faculty is represented as having to perform. I can hardly think, however, that Dr. Donovan intended to convey such a plurality of idea. But as to his having done so there can be no doubt, for it is as clear as sunlight.

Let us turn our attention now to " Phrenology in the School Room and the Family," by Nelson Sizer, and see what he says on the subject. He is one of the ablest of professors of practical phrenology, and probably no man has manipulated so many human heads and crania. Besides, he is unquestionably clever.

He remarks, page 74 : " Individuality recognises the existence of things, the divisibility of matter ; it is the faculty which separates one thing from another. A person with but an indifferent development or activity of it may look at a brick wall within fifty yards of his point of observation, and to him it is one great mass—it is a wall, and that is all it amounts to. Another, who has individuality large and active, will see the tiers of bricks, and looking still closer, he will see these tiers are made up of separate blocks of matter, and, after awhile, he sees that the wall is made up of fifty thousand individual bricks, laid in tiers in such a manner as to break joints, and thereby give strength to the structure."

Now, according to the usual construction of language, Mr.

Sizer, as teacher in the school room and family, points to a great difference between two men in their respective capacities for observation and deduction, and declares that this disparity is solely caused by one having a larger development of the organ of individuality than the other. To this I respectfully demur. Such extravagant hyperbole from such a pen cannot fail to do harm by retarding the progress of phrenology, and scaring intelligent enquirers from the subject.

Mr. Sizer actually teaches that individuality gives the capacity to reason and draw sound conclusions ; for the man who "sees the wall is made up of fifty thousand bricks, laid in such a manner as to give strength to the structure," is said to reason so because of the largeness of the said organ.

It is no use taking up space with more quotations from the works of other authors, for most of them harp on the same string ; and this article is already long enough ; yet it may be useful to draw attention to another fact or two.

In our investigations into the phenomena manifested by individuality or other faculty, we should as far as possible carefully eliminate all the phenomena of co-acting organs, or make due allowance for their modifying influence in the mental operations. If this be neglected, or not accurately performed, the result cannot but be unsatisfactory.

Let us then look at this for a few minutes in the light cast by Mr. Sizer's illustrative example of the two men looking at a wall from the same standpoint. A question presents itself at the outset. Would these men have both seen exactly alike if the organ of individuality of each had been equally large and active ? Who among the best practical phrenologists could answer this question correctly from the data given ? Not one.. Why ? Because no two heads are alike, and being somewhat different in size or form, or both, a consequent difference in the degree of manifestation would ensue. But Mr. Sizer makes no such qualification, and this omission alone discredits his illustration, and makes it valueless.

In an article on "Tact and Trade," p. 2, in the same work, Mr. Sizer further illustrates the function of individuality. He states that printers in whom this organ is small have difficulty in identifying type ; but those in whom it is large identify it quickly.

Here, again, there is no explanation nor qualification ; hence the reader is led to infer that the difference in the identifying capacity just noted arises entirely from disparity in the size of individuality.

No doubt if all other conditions were about equal, an extra development of this organ in one would add propor-

tionately to his perceptive capacity ; but if he had a less development of the organs of form and size, how would this affect the case ? Which of them would possess the most identifying power ?

I leave the question as an exercise for your readers, and particularly to the phrenological novice and aspirant.

PHRENOLOGY
PROVED, ILLUSTRATED, AND APPLIED.
(Continued.)

THE African race as found in America, furnish another instance of the striking correspondence between their known character and their phrenological developments. They possess,* in general, either large, or very large, adhesiveness, philoprogenitiveness, hope, language, and approbateness, or self-esteem, and sometimes both ; large veneration, marvellousness, individuality, locality, and tune ; with moderate causality, constructiveness, and mirthfulness. Combativeness, destructiveness, secretiveness, acquisitiveness, and, perhaps, conscientiousness, unlike these organs in the Indian head, vary in size, being sometimes very large, and in other instances, moderate or small. The size of their heads is generally moderate or small. Their extremely large hope makes them very cheerful and little anxious about the future ; and, with their large approbateness and small acquisitiveness, extravagant, and predisposed to lead a life of ease and idleness. Their very large hope and language, with small secretiveness and mirthfulness, give them hilarity, without much pure wit.

Their large, or very large, tune, which inspires them with melody, with their smaller reasoning organs, which give them but few thoughts, and their large language, furnish exactly such composition as we meet with in negro songs, glowing with vivacity and melody, and containing many words and repetitions, with but few ideas. Their smaller reasoning organs give them but comparatively little depth of intellect, or strength of judgment, with little talent for contriving and planning. Their very large philoprogenitiveness, adhesiveness, and inhabitiveness, make them extremely attached to their families and the families of their masters, and pre-eminently social.

Their excessively large approbateness and self-esteem create in them that fondness for dress and show, and that pride and vanity, for which they are so remarkable. Their large religious organs produce those strong religious emotions, and that disposition to worship, for which they are distinguished, as well as those rare specimens of eminent piety sometimes found among them. Their variable selfish organs cause those extremes of temper and character which they

* Individual exceptions to this description are frequently to be met with, but the general features will be found to be characteristic. The intellectual organs are, in general, much better developed in coloured children than in adults.

display, sometimes running into cunning, thievishness, and general viciousness and cruelty, and sometimes showing the opposite character. Their large marvellousness accounts for their belief in ghosts and supernatural events so often manifested among them ; whilst their very large language, combined with their large perceptive organs, generally would create in them a desire to learn, and enables them to succeed well in many things.

The phrenological developments and characteristics of the Hindoos are no less striking. In them the organs of destructiveness and combativeness are generally small, which renders them less cruel and warlike than the American Indians, or even the European race. Their extremely large veneration and marvellousness produce that religious enthusiasm and superstition for which they are so noted ; and their large acquisitiveness and small conscientiousness often make them thievish.

Another important argument in favour of phrenology may be drawn from the difference in the conformation of the heads of the two sexes. In the female character, fondness for children, and general attachment, are undoubtedly predominating and controlling passions, much stronger, indeed, than the same passions in the male sex ; and, accordingly, we find the organs of adhesiveness and, particularly, philoprogenitiveness, so strongly developed in the female head as to elongate, and even deform, the middle portion of the back part of the head, affording a sure sign by which to enable the phrenologist to distinguish the female from the male head.

The timidity, trepidation, and anxiety of the sex, are proverbial ; in accordance with which in their heads we find the organ of cautiousness much larger than in the male, and combativeness and destructiveness much smaller : and this perfectly harmonizes with the fact that they are more amiable, and less cruel, than the other sex. Man possesses more dignity, sternness, and force of character than woman, and we find in his head not only a superior endowment of combativeness and destructiveness, but also of self-esteem and firmness. The moral and religious organs are generally much larger in the female, than in the male, head ; and we know that women are much more inclined to religious worship than men. Ideality is commonly larger in females ; and in harmony with this, we find them more refined and delicate in feeling, and possessed of better taste.

The sympathy and kindness of woman are also proverbial. She will go much farther than man in her assiduities and unremitting attentions to the sick, the needy, and the afflicted ; she will do, she will suffer, she will sacrifice anything and everything to relieve distress : and all from pure motives of kindness, affection, love, and duty. The phrenologist alone is capable of developing and explaining this interesting mystery. He can place his finger upon her superior organs of benevolence, conscientiousness, adhesiveness, and philoprogenitiveness. The reasoning organs are not so strongly developed in the softer, as in the nobler, sex (whether from a want of cultivation, or from some other cause, we do not pretend to decide) ; and, accord-

ingly, we find the former less distinguished for originality and power of thought than the latter.

If the mind were a single faculty, and the brain a single organ, and, of course, phrenology a farce, we might expect to find a uniformity in the shape of the heads of the two sexes, and also uniform developments in the heads of the various individuals of the same sex; but that is exactly the reverse of what we find to exist. Now, this marked difference in the conformation of the heads of the different races of men, of the sexes, and of different individuals, must either be designed for some wise purpose, or it must be accidental. That it is accidental, no rational mind can believe; but if it is the result of design in the great Author of it, the conclusion is obvious, that it must have a direct reference to the different qualities of mind known to be possessed by these different races, sexes, and individuals.

Thus far, then, we have presented only a few of the numerous classes of facts which go to prove the truth of phrenology. Should we descend to particulars, volumes would be required to enumerate even the striking instances which, in the course of a few years' practice in the science, have fallen under our own observation.

Phrenology is either wholly true or wholly false. If the phenomena which support it, are fortuitous or accidental, the truth of phrenology may be doubted; but if they are the result of fixed laws—of the unalterable principles of nature, it must be true. But the uniformity and harmony observable in these phenomena render it impossible that they are the mere product of chance: hence it is impossible that phrenology can be untrue. Phrenology, then, is consistent in theory, and, by an appeal to nature and to facts, susceptible of physical demonstration. It challenges the most scrutinizing examination. They who question its truth are called upon to disprove the foregoing propositions, and to account for the facts which support it, on other than phrenological principles: and the importance of the subject makes this call a reasonable one.

For several years past, on all occasions, and under every disadvantageous circumstance—even when opposed by prejudice, by envy, by malice, by ridicule—we have boldly challenged those who doubted the truth of phrenology, to test us in any and in every way which their scepticism and their ingenuity could devise: and we can appeal to more than ten thousand living witnesses, who have been present at our public examinations of heads (as well as to the testimonials introduced at the close of this work), who will bear evidence to the great and wonderful accuracy with which we have described, even in minute detail, the character and talents of those examined—notwithstanding very many of these examinations were made by the sense of touch alone, our eyes being covered. Observation and experience, in short, have as thoroughly convinced the author of the truth of phrenology, as he is satisfied of the truth of chemistry, electricity, or any other of the natural sciences, and by the same kind, and an equal amount, of evidence.

Phrenology, then, demands assent to the following series of pro-

positions, namely, that the brain is the general organ of the mind—that the mind consists of a plurality of faculties—that each of these faculties is exercised by means of a particular portion of the brain—that these several faculties are possessed in several degrees of power by the same individual, and also by different individuals—that the size of these several portions of the brain, or organs, is proportionate to the power and exercise of their respective faculties—that, in general, the shape of the skull corresponds with that of the brain—that phrenology was discovered, and thus far matured, wholly by induction—and that the whole animal kingdom, and especially the human species, both prove and illustrate the truth of this science.

But, as phrenology claims to be supported by facts, we ask those whose opinions are valuable, will neither form nor express a decision upon its merits, until they have examined a sufficient number of these facts to decide understandingly. "Self-conviction," observes an able phrenological writer, "must depend upon self-observation." As the field is open to every one, and is easy of observation, all are invited to examine and judge for themselves. In this work will be found our rules, and all into whose hands it may fall will be able to apply them to the characters and developments of their friends and acquaintances, and thus either prove or disprove phrenology.

THE TEMPERAMENTS :

Physiology of the Temperaments.

Physiology is connected with phrenology in the reading of character. We cannot disconnect them. It is necessary to understand the laws of physiology in order to apply the principles of phrenology; for, if we read the phrenological developments without taking into account the physiology of the individual, we shall certainly make mistakes. Hence, it is important to give attention to physiology in prosecuting this study. Phrenologists and physicians generally recognize four temperaments. These are, the lymphatic, the sanguine, the bilious, and the nervous temperaments.

There are, in fact, as many temperaments as there are organs and functions which have a modifying influence; but in order to present their influence and illustrate the effects of the bodily functions on the mind in a condensed form, my brother and myself, in 1839, classified all the organs of the body and their functions, together with the brain, under three heads, with their subdivisions, and called them the vital, the motive, and the mental. We have had a world-wide experience, and have had no reason to change our nomenclature since that time. This classification is also general enough to embrace the other divisions made by other authors; for the vital includes the arterial, the sanguine, the thoracic, the digestive, and the nutritive. The motive includes the muscular and the bony or osseous. The mental includes the sensitive, the harmonial, the spiritual, the nervous, and the cephalic.

The vital temperament includes all the internal organs of the body that generate life, and help to sustain it; those which contribute to

re-supply the powers of the system which otherwise would be exhausted by the activity of the brain, nerves, bones, and muscles. These organs are the digestive apparatus—the heart, the lungs, and the viscera. The foundation of the vital temperament is the digestive power, which gives strength to the system, while the breathing and circulation of the blood promote vitality.

A person who has this temperament is generally zealous, enthusiastic, impulsive, susceptible to great enjoyment and excitement, has a good appetite, enjoys sleep and the pleasures of animal life.

Those who have the vital temperament do not care for hard study,

The Vital Temperament.



C. H. SPURGEON.

abstruse reasonings, or lengthy arguments ; they show more fondness for business and out-door occupations ; they are shrewd, have tact, and generally collect much information from observation and conversation with friends, as they are also social and friendly. They are more showy than sound and abstruse.

It is usually accompanied with a peculiar form of the head, which is round and prominently developed at the base. The organs of amativeness, acquisitiveness, alimentiveness, benevolence, language, and the perceptives, are generally large. Agents, overseers, cashiers, aldermen, landlords, captains, butchers, lawyers, physicians, politicians, and public officers, have the vital temperament. The Jews, Germans,

Irish, Dutch, Africans, and Indians, have this temperament. The Indian chief Keokuk, and every one of the thirty Indian chiefs the busts of whom were taken by my brother and myself a number of years since, have fine chests and a predominance of this temperament.

There are certain diseases connected with the vital temperament. When the abdomen is large, the digestive organs, together with those of secretion and excretion, predominant, the person is more liable to be troubled with dropsy, humours, gout, and tumours. When the thoracic region predominates, and the chest is deep and broad, the flesh is harder than when the digestive prevails, and the complexion is ruddy and sanguine, the person is liable to sudden attacks of disease, inflammations, acute fevers, diseases of the heart, and apoplexy. When the arterial system prevails, when the pulse is rapid, the veins and arteries full of blood, there is also a tendency to inflammations of various kinds, a rush of blood to the head, unless the circulation of the blood is very perfect. When the lymphatic glands throughout the system are unduly active, there is a greater tendency to keep in a quiet position, to avoid active exercise; and this condition of the body often induces dropsy or scrofula.

The vital temperament, as a whole, is a desirable one, and no person can sustain long and vigorous mental or physical action without it. The following are examples of this temperament:—King George III. and King George IV., Queen Victoria, Martin Luther, Brigham Young, William Penn, Professor Simpson, Dempster, Punshon, Hon. Lewis Cass, Lord Elgin, Agassiz, John Bright, M.P., George Hudson, Henry VIII., &c.

The motive and muscular organization embraces the bones and framework. In proportion as there are good bones and good muscles, there is power in the constitution, power to endure, to sustain hardships, to overcome obstacles in the way. It is the machinery of the body. If the bone is large, compact, and solid, there is a peculiar influence exerted over the mind and body. If the muscle is strong, it also gives tenacity to the constitution. A lady who has a small muscle does not like action, and will not run upstairs to get what she wants; but if she was going, she would then, without putting herself out of the way at all, get what she wanted. A man who has a strong muscular frame will walk rather than ride, and will delight to take active exercise. The motive temperament is connected with action, motion, endurance, hardihood, and toughness.

Seamen who have this temperament endure untold hardships. They will cling to a dismantled ship six, seven, and even eight days, without food, water, or rest, and yet when relief comes they are resuscitated, and their constitutions are unbroken by their exposures and trials. Soldiers who have the motive temperament are sometimes shot many times, sabred, cut, bruised, may lose an arm and a leg, and yet they rally, and live many years. Nations endowed with this temperament are not easily subdued or conquered. Poland and Scotland are examples.

Those who engage in bold enterprises, who make extravagant

and denunciatory remarks, whose oratory is of the vehement and “sledge-hammer” kind, have this temperament. Elder Knapp, Elder Swan, and Parson Brownlow are examples. Parson Brownlow’s whole life evinces a predominance of this temperament; he cannot make a tame remark, or do an inefficient thing, but is a strong partisan, and uses the most forcible expressions: but sometimes his language is coarse. If he had more of the mental temperament, he would show more refinement and would use more choice language.

This temperament inclines a person to labour, to be industrious, to desire constant employment, to work without fatigue, to endure great hardships. Persons who have this temperament are not so polished and refined in their manners, with the same opportunities for mingling in refined society, the same amount of training and the same

The Motive Temperament.



LINCOLN.

discipline, as those who have the mental temperament. They are more thorough, plodding, tenacious, direct, plain, practical, efficient, and persevering; they are disposed to do and say bold things, to be connected with reforms, machinery, and pioneering work.

If the osseous system is greater than the muscular, the person is slower, more awkward, and heavier in his motions and movements; but if the muscular has the ascendancy over the osseous, there is more action and ease of motion. The person will have a steady hand, agility in his performances, surefootedness, and a love for physical exploits; will make strong and severe gesticulations, will have a marked expression of the face, a strong hoarse voice, and great positiveness of character.

Every temperament is connected with a physiognomy peculiar to itself. With the motive, the features are strongly and distinctly marked, the person is generally of good height, spare and sometimes lean, has a prominent nose, often a Roman nose, high cheek-bones,

like the Indians, large and broad teeth, dark coarse hair, which may be very abundant or not as the person is healthy, a heavy black beard, black or dark eyes, and a dark skin. The bones of the whole body are large, and the joints project; the muscles are also prominent, as well as the veins, and the flesh is hard. The person seems more like a draught horse, as if he was made to do the world's work. It is to men of this stamp that we look for energy of purpose, for determination, for the hewers of wood and drawers of water, for the accomplishment of mighty schemes. It is men of this stamp that lay out railroads, that clear the forests, that tunnel mountains, that construct tubular bridges, iron-plated steam-ships, and ocean telegraphs. The world could not get along without men of this kind; and when such men engage in scientific pursuits, they are thorough and untiring in their scientific investigations.

Our hardest workers, strongest men, and boldest thinkers, have a predominance of this temperament.

Persons with a predominance of the motive temperament are subject to a special class of diseases, as rheumatism, indigestion, imperfect circulation of the blood, derangement of the liver, bilious tendencies, piles, gravel, chronic difficulties. The diseases of this temperament are chronic rather than acute, lingering rather than inflammatory. When disease fastens upon individuals of this temperament it takes greater hold; but the person has a greater strength of constitution to endure it, and to recover from the effects of it.

The following persons are examples of this temperament:—The Duke of Wellington, Hugh Miller, Lord Brougham, Kosciusko, Gladstone, Oliver Cromwell, Blackhawk, Dr. Dixon, President Lincoln, &c.

The Mental Temperament embraces the brain and nervous system, and is the medium through which the mind is manifested, and develops sensation, emotion, thought, and feeling.

The nervous system begins to grow in the medulla oblongata, and is a mere ganglion of nervous matter. It extends downward through the spinal column, and, by means of the nerves that go from the spinal marrow through the vertebræ, every portion of the body is pervaded by the nervous system. These nerves from the spinal column are nerves of motion and sensation, and they are united in a common sheath; but if they are severed in any part of their course, either sensation or motion will be impaired, according to the nerve that is affected, and this loss of sensation or motion will continue to be experienced, as long as the person lives, in those parts of the body below the injury.

From the medulla oblongata, the same starting-point of the growth of the nervous system, the brain grows upward to fill the skull; layer after layer is added, till the brain assumes its human form. At first there is only a ganglion of nervous matter, and the brain is like that of the lowest orders of creation. Anatomists say that it assumes the shape of different animals, from that of the fish and toad to that of the dog and monkey, till the brain is a human brain. It is quite an important consideration to learn that the brain is developed first in

the base, where the propensities, or those organs interested in maintaining life and vitality, are located, and then other layers or convolutions are unfolded in the upper and anterior portions, where the moral sentiments and the intellectual faculties are located. The child needs nourishment, and, hence, requires appetite, or the exercise of alimentiveness ; and as the cerebellum aids in giving vitality and prolonging life, it is also important in childhood, while the reason and moral powers are not requisite till afterwards, when the child has a good hold on life.

The folds of the brain, or the convolutions, allow of a greater degree of nervous matter to be folded up in a small compass than as if the brain was extended on a plane surface. These convolutions are sometimes very deep, and, in proportion to their depth there is a corre-

The Mental Temperament.



COMBE.

sponding degree of intellectual power. The skull is greatly expanded when there is "water on the brain," or the person has hydrocephalus ; in idiots the convolutions are small and more contracted.

The brain and nervous system, like a tree, have roots, a trunk, and branches. The nerves extend to every minute portion of the body, are connected, by means of the spinal marrow, to the base of the brain, and to the brain itself, so that the brain is cognizant of every action, even in the most remote part of the body.

The quality of the nervous system varies with different persons, and it has its influence on the tone and quality of the mind. Its quality is to be determined by its coarseness or fineness, the same as we decide upon the coarseness or fineness of the bones, muscles, hair, and skin. The thinner the skin, the finer the quality of the nerves ; the nearer they are situated towards the surface of the skin, the more apparent their manifestation will be to give sensation, motion, and mental susceptibility ; for as is the condition of one part of the body or nervous system, so is that of the other.

The quality of the nervous fluid varies, and is dependent upon the quality of the secreting system. Climate, modes of life and health, have much influence upon this nervous fluid. It may be strong or weak, high or low, in tone and vigour, the same as the quality of the liquid bath of the photographer varies according to circumstances. When it is not good, the impression on the plate is never clear or distinct. The same is true with the nervous fluid. When, from any cause, it is diseased, the brain may think and reason, yet the manifestation is impaired, and the mind seems cloudy or misty. This is why philosophers, in the last years of their life, sometimes lose their intellectual power. They become enfeebled in body, the nervous



MISS WILLARD.

system is weakened, and they are unable to manifest the mental power their education and scientific investigations should enable them to do to the end of life.

Many persons work off vitality and exhaust nervous energy faster than they can generate them ; hence they have a limited measure of each.

We call this temperament mental, because whenever there is a predominance of the nervous system there is a predominance of mind ; and, as before stated, when the nervous system is healthy there is power to readily put into execution what the desires and inclinations dictate ; but if there is a want of locomotive power or of nerve power, the individual will be slow. Some children have a strong body, but not much activity, and other children generally wait upon them.

There is a difference in organization, and temperaments make this difference in a great degree.

In proportion as there is brain there is mind. It does not follow that if a person has the mental temperament he will necessarily develop great mental powers, for circumstances may not have been favourable for the person to have gained an education ; but, with a good and thorough education, and a healthy mental temperament, much can be accomplished in a literary channel.

The brain makes the body its servant, and hence the whole body is the medium of mental manifestation. If the brain is larger in proportion than the body, it is liable to exhaust the body, because the exhausting power is the brain. If the brain is small in proportion to the size of the body, the person is liable to take on an excess of vitality, to generate life without exhausting it through the mental susceptibilities : such a person will not die prematurely from nervous exhaustion.

We prefer to call this temperament mental rather than nervous. Some are nervous because they have taken strong tea, stimulated too much, been bereaved of friends, and because the nervous system is in predominance ; but the mental being dependent upon nerve is indicated when there is a predominance of nerve over bone and vitality. Some have their nerves nearer the surface, and they feel every outward sensation more keenly ; while others are internal in their character, and but few really know and understand their real dispositions.

It is not well for any person to have this temperament in excess, because balance of power in the organization is much more desirable. We need a framework, good bones and muscles, as well as good nerves and a healthy brain.

Mind may be powerful in a twofold sense. There may be power with and over the body, and power as confined to philosophical truths and subjects.

The mental temperament has its peculiar derangements or diseases ; so intimately is the brain connected with the body, that these diseases are both mental and physical, as brain fever, insanity, idiocy, spinal complaints, nervous diseases, dyspepsia, and consumption.

There are mental dyspeptics, gouty minds, consumptive minds ; some eat enormously, yet are never fleshy, but apparently are only skin and bones—mere walking skeletons ; others become fat by eating turnips and vegetable food. Some, with great care, can keep their digestive systems in a good condition, while others with but very little care can digest anything, and are always healthy. Nature has done more for this last class than for the first. Some persons are constantly reading and studying, and yet are quite barren of ideas, contracted in thought, bigoted in opinion, and opposed to progression of all kinds. Others read and see but little, yet they make the best use of the knowledge they gain by turning everything to account. They are full of warm stirring emotions, and they have good mental digestion. Some read with great care, and can repeat verbatim what they have read ; while others read, but their minds are so active that the author has suggested to them trains of thought, and, in reality, when they close the book

they have not only gained the author's ideas, but have increased their own stock by enlarging upon these ideas.

Sex regulates the temperaments, as the same temperament is of a different tone in the opposite sex. While the motive temperament is positive in man, it may be negative in woman; and the mental may be comparatively negative in man, but highly positive in woman, because she is more susceptible in her nature.

It is very desirable that there should be a balance of them, so that neither may be excessive, in order to secure health, happiness, improvement, and general usefulness. The truly feminine temperament is the vital and mental. The masculine temperament is the motive and mental. When a man takes after or resembles his mother in organization, then he will have more of the vital, and less of the motive, with a predominance of the mental.

The mental temperament is predominant in persons who have fine, smooth, light, and often thin hair, a clear, soft and delicate skin, a bright, intelligent, and sparkling eye, an animated countenance, a small, narrow chest, a small abdomen, stooping shoulders, a clear, sharp, shrill voice, small bones and muscles, small stature, sharp features, thin lips, small pointed nose, and small teeth that frequently decay early. Such persons have uneven heads, sharp phrenological organs, are very quick in their motions, and have great sensitiveness to pain or suffering. They will be inclined to study, think, write, teach, speak, practise the fine arts, do in door head-work, in preference to manual labour. The mind will generally predominate in power over the body, and, with fair culture, the person will be clear-headed, intense, susceptible to enjoyment and suffering, and to every internal or external influence. A person with the mental temperament is fitted by nature for a profession, or some literary pursuit, in preference to business.

The following are very good specimens of the mental temperament:—Rev. Jonathan Edwards, Pres. Wilbur Fiske, Prof. E. A. Parke, Rev. Leonard Bacon, Benj. F. Butler, George and Andrew Combe, Rev. Mr. Candlish of Edinburgh, Sir Alexander Hamilton, Prof. Forbes, Voltaire, Mazzini, Rev. N. Maffit, Gen. Fremont, John B. Gough, Prof. Owen, Dr. Lees, Baptist Noel, John Wesley, Dr. Trall, Horace Greeley, Wendell Philips, Dr. Channing, Edgar A. Poe, Ralph Waldo Emerson, Wm. Lloyd Garrison, Princess Alexandra, Fanny Forester, &c.

The different temperaments can be cultivated, increased, or modified, by using the means adapted to their particular legitimate action, and a practical knowledge of them is of incalculable advantage to those who wish to perfect their organizations.

Balance of power is seldom attained, for it is common to find those who are strong in one respect but weak in others. They are like Nebuchadnezzar's image, partly iron and partly clay, for in becoming powerful in one direction, they are liable to contract their powers in another. Thus we often find greatness and littleness, learning and ignorance combined.

BIBLE PSYCHOLOGY AND THE PHRENOLOGY OF THE FUTURE. PART II.

IN our former article we pointed out, that, according to Scripture psychology, "man" was a Tripartite being consisting of body (*soma*), of soul (*psyche*), and of spirit (*pneuma*) ; that, a material body, exquisitely moulded and organized for life's purposes and uses, lay in lovely repose ; that, the Almighty breathed into this beautiful figure and perfect form, "the breath of life," and man became a living soul, or creature—a *tertium quid*,—the resultant of two opposite forces different from either the dead form, or the divine spirit in-breathed ; just as the union of oxygen and hydrogen, in certain proportions, produces water—a liquid body, totally unlike the invisible and constituent elements from which it was produced.

If the *ego* of humanity — the *homo* — is a Tripartite being, and the Creator who formed man says so, what then is the difference betwixt the Gallian phrenology, and the philosophy of the human mind (so-called), as both systems profess to expound the principles of human nature as manifested in every-day life ? Why two exponents, if one is true ? If these systems do not agree, in what do they differ, and why ? The soul, of necessity, works with cerebral organs, and cannot manifest its powers and susceptibilities without a material instrument adapted to its psychic nature. In order to make known, and to demonstrate how this manifestation had taken place without Man's being aware of the why and the wherefore,—some eighty years ago phrenology happened to be discovered ; and, fortunately for mankind, the very brain-organs which each soul-faculty used in manifesting itself for life's purposes could be pointed out. How charming, from the reciprocal adaptability, must have been the discovery of cerebral organ to psychic function ! On the other hand, the old-fashioned mental science seemed, through all time, to have ignored cerebral instrumentalities altogether ; and so long as psychic faculties could manifest themselves, it mattered not to the philosophers of the metaphysical school by what means or agencies these were brought about. Hence arose the difficulty of not knowing which were pure, simple faculties, and which were compounded, or those made up of two or more elements. The knowing, for a certainty, which were simple, and which compound powers, has given phrenology a great advantage over the old school doctrines, still taught in the universities of Britain as the correct philosophy of the

"Constitution of Man." The application of a correct psychology in regard to education, theology, and the affairs of life, is of vast importance. Mental science, as at present understood, is not on a physiological basis, and leads a student to Muddledom—a region out of which one even accustomed to this gloomy region hardly ever finds his way into the sunlight of truth. Phrenology, even so far as now discovered, has shown itself to be a great improvement on the old metaphysics.

Though the five or six senses had special organs with which to manifest their functions, it seems strange that to the philosophers of Greece and Rome the idea did not occur that other faculties of the soul might also have organs by which to manifest themselves, either through the brain or through that of some other part of the nervous system. Of the functions of the brain, not only the Ancients, but the Moderns, even till the time of Dr. Gall, were almost in Egyptian darkness; and when Gall and Spurzheim showed the medical men of that day how to unfold the lobes of the brain, and explained the functions of the different parts thereof, they kicked and fumed like so many ill-trained children, and would not be enlightened--and why? Because their anatomical ignorance was so completely shown up that wounded pride rebelled against such an *exposé*.

Dr. Gall was the first to strike the note on this unknown and unused instrument, by his juvenile observations, on what turned out afterwards to be the organ of language. The next key-note occurred when at college—viz., that the whole brain might possibly be the organ of the soul's action, or certain parts of it the special organ, each, of a separate soul-power faculty, or susceptibility; and, as stated before, Gall, along with Spurzheim, following out these conjectures, found the "homes," as Lord Bacon calls them, of 35 mental faculties. Shortly after this, when these discoveries were attracting much attention, not only in Europe, but in America, Dr. James Rodes Buchanan, of Boston, increased the number of cerebral organs by the announcement that the several organs of Gall were composite, and made up of many minor organs each with similar or allied functions.

When the new discoveries of Dr. Buchanan shall have been thoroughly tested, and passed through the ordeal of the inductive processes—not to say too of prejudice and of wounded pride—the functions of the soul's cerebral organism—the brain—will have been pretty fairly experimented upon and made known. Even when this soul-part of humanity shall have been explored, there will still remain to be investigated the Divine, the grandest part of man—the Breath—which God

breathed into his nostrils, known by the name of "the Spirit," or "pneuma;" or, as Dr. Chalmers called it, "the vicegerent of God in the human soul,"—*i.e.*, the Conscience in ruins, in consequence of Adam's fall.

Since the science of physics proves that all energy acts through matter, and spirit is the highest form of energy, and cannot manifest itself, amid earth's conditions, but through a cerebral organ called the "pneuma;" and, although little known and manifested at present, this divine faculty must have a cerebral locality somewhere in the nervo-motor system by which to act, the question for consideration is—Has this organ or cerebral atom been discovered? If so, where is it, what is its function, and its other relationships in the human economy?

As the "pneuma" is that part of man created in the image of God, it behoves us to be circumspect in our remarks, not forgetting the words of Sir William Hamilton, the distinguished logician, "that no difficulty emerges in theology, which has not previously emerged in philosophy;" advice all the more needful to be observed during this psychological inquiry, as we shall be constantly on the boundary line, if not often within, the domains of an advanced Theology.

SAMUEL EADON, M.A.

LA BRUYERE.*

THERE could be no surer test of the vitality of a literary work than that two hundred years after its appearance it should still be widely read and admired in the country of its birth, and have the further honour of translation into alien languages. Still, it is strange that so famous a book as the *Caracteres* of La Bruyère should so long have remained untranslated into English; for it is familiar to Germans, Swedes, Italians, and Russians, in the respective languages of each. The chief reason, no doubt, is the indifferent interest among us towards all French literature, save the writings of the most famous names; moreover, the short essay, particularly the concise paragraphic statement or *pensée*, has never had any vogue with British writers or the British public, and the single instance of Charles Lamb is merely the exception that proves the rule. Of the celebrated men who constituted so brilliant a group during the reign of Louis XIV. how few of our country-folk know anything at first hand: Racine and

* The *Characters* of La Bruyere. (*Masterpieces of Foreign Authors.* Vol. I. DAVID STOTT.) Translated by Helen Stott.

Moliere are, perhaps, fairly well-known ; La Rochefoucauld's "Maxims" are familiar through a dozen translations and paraphrases ; but Fenelon, Bossuet, La Fayette, La Bruyère, and others are mere names. A distinct debt of gratitude, therefore, is due to the lady who, with commendable skill and sympathy, has translated the "characters" of Jean de la Bruyère, and to the publisher who has ventured to issue the book as the first of the "Masterpieces of Foreign Authors," the new series which promises so well, and for which, if judiciously guided, there is indubitable room and an assured welcome. In these pithy, brilliant, profound, witty, and occasionally pathetic notes on "the morals and manners of the seventeenth century," there is much that must appeal to every reader, though it must be admitted that a fair proportion of the text is in the nature of the case not to be appreciated now as in the olden time, two centuries ago, when La Bruyère's contemporaries recognised behind all the fanciful classical names—Theodectus, Æmilius, Dorina, Orortes, Democedes, Titius, and so forth—real personages, whose virtues and vices and foibles (though rarely enough the first) were the common talk. A single sample will suffice to show how stale and uninteresting a passage may appear to us which no doubt had an enjoyable piquancy to the good folk who laughed away their merry lives under the reign of good King Louis.

"*Oranta* has had a law suit before the courts for ten years, about the settlement of a very important affair on which her whole fortune depends ; she may know perhaps in five years more who her judges are to be, and before what tribunal she is to plead for the remainder of her life."

There is nothing here for the modern reader except the information that the law's delays were as notorious in 1690 as in 1890 : nothing new, information, indeed, that was stale even before the Latin satirists delighted the Romans with their bitter gibes. Here, on the other hand, is an equally personal note, yet one that can be read with pleasure ; not because its subject is a whit more novel, but because the satire is more immediate, more scathing and direct, and because Titius and Mævius are *real*, while *Oranta* is but a shadow, an abstract type.

"*Titius* is present at the reading of a friend's will, his eyes are red and tearful, and his heart is heavy with grief at the loss of one by whose death he hopes to inherit a fortune. One clause makes him successor in office, by another he inherits property in town, by a third he is master of a country estate, while a fourth bestows on him a house in the best part of Paris, furnished and complete. His grief increases, unre-

strained tears flow down his cheeks ; he is now a public officer with a place in the country and one in town, able to keep a good table and drive a carriage ; ‘ was there ever in the world a kinder man than the deceased ? ’ But stay ! Here is a codicil which must be read ; and by it *Mœvius* is sole legatee, and *Titius* is sent back to obscurity without either honours or money, and is again obliged to go afoot. He dries his tears, and it is now *Mœvius’s* turn to weep.”

But, after all, by far the greater part of the book is taken up with thoughts, apophthegms, witty sayings, and generous reflections which may be read by persons of all nations and all epochs. It is a pity that Miss Helen Stott has not been somewhat more liberal with her footnotes as to the actual persons disguised under ‘Theodectus,’ ‘Orortes,’ and the rest, for while in some instances, as in that of the lady referred to as *Oranta*, in the above excerpt, we should be none the wiser, there are others where the sole point is in the relevancy. In the most important allusions she has duly mentioned what is needful, but in the notes to Chessang’s admirable edition of the *Caracteres*, and still more in Edward Fournier’s *Comedie de la Bruyère*, she would have found much that would have made her own pleasant volume even more welcome than it is. The book is partitioned into sixteen sections, dealing respectively with Intellect and Learning, Personal Merit, About Women, The Heart, Society and Conversation, The Benefits of Wealth, Paris, The Court and Courtiers, The Nobility, the Sovereign and the Republic, Men Judgment, and Criticism, Fashions, Some Customs, the Pulpit, and Of Unbelieving Minds. In addition to the translation of these, three hundred pages of “ wit and wisdom”—a singularly equal as well as able translation, I may add—Miss Stott contributes a short Introductory Memoir. This is the least satisfactory portion of the book. It is not ill-written, despite such occasional slip-shod English as “that illustrious throng of learned intellect,” but it is inadequate in biographical completeness (an exceptionally simple requirement in the instance of so absolutely uneventful a life as that of Jean de la Bruyère), and might have been more authoritative even in the few facts given. Thus, there is no longer even a doubt as to his having been born in Paris in 1645, instead of, as Guizot declared, at Dourdan in 1639 : neither is it the case that we first hear of him at Caen, in an official capacity, for we know that some years before that date he was at Orleans, where he was educated, that he was called to the bar, and that it was not till 1673, when he was eight-and-twenty, that he purchased a post in the Revenue Department at Caen. As the office in question was one that not only carried with it an

assured though a small income, but also the valued status of *noblesse*, Jean must have had means as well as influence behind him. This position he held for fourteen years—so that the circumstances certainly calls for mention, even in the briefest biography. Moreover, it is a direct contradiction to Miss Stott's statement that he spent all his life at Court, though unquestionably the greater part of his life was so spent: although, on the other hand, it seems indubitable that though he did not sell his post at Caen till 1687, he by no means spent his fourteen years as a revenue officer at that small town. Probably he latterly deputed the not very irksome office, before he took up his abode in the Hotel de Condé at Versailles, as tutor to the young Duke, the grandson of the famous Prince de Condé. Such an important item as the date of the publication of the *Caracteres* (1688) is not mentioned by Miss Stott, who, moreover, gives 1693 as the date of La Bruyère's election to the Academy. It is true he was a candidate in that year, but so bitter was the animosity against him on account partly of his personalities and partly, perhaps, because of his uncourtier-like disposition and manners, that it was not till after long delay and opposition, and a third candidature, that in 1695 he gained the coveted seat. The honour, however, was not long enjoyed, for he died shortly after his election. But, after all, these are very slight flaws in so excellent and desirable a book, and they are mentioned more in the hope that Miss Stott will verify and, perhaps, somewhat amplify her interesting little essay in a later edition. Many of La Bruyère's sayings are not only famous, but have become the joint property of authors of all nations. "There is not a love, however violent it may be, to which ambition and interest do not add something" is familiar; so are "Features betray the temperament and character, but the mien indicates the degrees of fortune"; "There is no better excess in the world than the excess of gratitude"; "A beautiful woman, with the qualities of a noble man, is the one perfect thing in nature"; "A prude exhibits her virtue in word and manner; a virtuous woman shows hers in her conduct"; "There are several ways to speak: to speak well, to speak easily, to speak justly, and to speak at the right moment"—to specify one or two among many. The drawback to La Bruyère as a literary force, is that he is neither so genial, so human even, as Montaigne, so poignant as La Rochefoucauld, nor so witty as Rivarol, with each of whom he has been compared. His style is always exquisitely polished, is for the most part charming, and is occasionally rarely winsome. Yet it may be that he will ultimately be

forgotten, for, with all his originality and charm, La Bruyère is of that order of minds which have their immortality in the minds and works of those whom they have inspired, and are not, as the greatest, beacons whose fire may wax or wane, but being immortal may never fade.

ARE CRIMINALS RESPONSIBLE ?

By L. N. FOWLER.

ACCORDING to Dr. Despine, as quoted in the *London Medical Record*, "Most criminals are morally irresponsible, no matter how great the crime they commit against society." I differ from Dr. Despine's conclusions, and believe that criminals are responsible for their crimes, unless those criminals are moral and intellectual idiots. There are degrees of responsibility, and these depend on the amount and balance of the mental and moral faculties with which individuals are endowed, also on the quality of their organisations. Some are below the average scale in quality and quantity, while others are far above the average in moral development. Barbarians have enough intellectual and moral power to make them very exacting of each other, and they are very severe in their punishments when they think offenders have not fulfilled their respective duties faithfully. No man, unless he be an idiot, can grow up in a civilised and Christianised community without having his "moral sense" awakened sufficiently to distinguish between right and wrong, according to his acceptation of moral ethics, and in a normal state of his mind he is able to obey the laws of the land. Men can so live as to lower the tone of their minds, stunt their moral sense, and stupefy their moral feelings. But many criminals assume the appearance of indifference in order to manifest a plucky, bravado spirit. Some desperadoes sagaciously calculate that success in their wicked ways will bring great luck, while failure will bring misfortune and disappointment, and they are willing to take the consequences of their risks, whatever they may be. I will not deny but that they are more conscious of the legal than of the moral consequences ; but one who has any idea of the legal consequences of an act has some idea of moral obligation. Let an outrage be committed on one of those men, and he will quickly show that he has moral sense enough to resent the outrage, particularly if his property has been appropriated in any way. Having had very great experience through visiting in prisons some of the most noted criminals, and having examined them phrenologically and physiologically, in

order to satisfy my own mind why they have committed flagrant crimes, I have deliberately formed this conclusion—that although criminals are defective in the balance of their mental powers, all have sufficient counterbalancing or redeeming qualities to enable them to lead a moral life if they would. Though the animal passions and propensities may greatly predominate, and the moral sense be feebly developed, yet it is never entirely destitute. A man may stunt its growth, harden the tender feelings of his soul, weaken the sense of right and wrong, live only in the gratification of passion, without the least regard for the future or the wellbeing of the community. Let such a man be convicted of crime and sentenced to an ignominious death, he braces himself up to repress every manifestation of moral feeling, and to the last will not confess the turpitude of his crimes even if he inwardly feel it. Such have a false code of honour, and one of its tenets is "to die game." We should not be surprised at this when we reflect that perhaps these men have been undergoing a hardening process in the school of vice for many years, and that each one attempts to outdo his fellows in manifesting indifference to all tender emotions; in fact, this is a part of their training, and the boldest and most fearless are considered the best in their circle. To such, the highest source of enjoyment is the gratification of the appetites and passions. Again, many criminals take the law into their own hands, and punish a real or imaginary wrong by the infliction of great cruelty, and even murder. Generally, they are not a dull, but a morbidly sensitive class of people, and they dwell continuously on the mistaken idea that society has done them some egregious wrong, and that if they can in their way retaliate by striking a deadly blow at society they will have discharged their duty. Yet even the most abandoned criminal is sometimes touched by an appeal made to his moral sense, or higher nature, and leaves off his evil practices, which he would not do, unless he had some moral sense to be affected. If we admit that we have among us a class of men lower than the savage and barbarian, not accountable for their wicked deeds; we admit a condition that is exceedingly dangerous to society, and once let that idea become prevalent, crime would increase. A thorough discussion of this subject would involve a consideration of the laws of hereditary descent, the influences of habits, associations, training, etc.

But I have found that confirmed criminals have perverted the normal action of the moral faculties by indulgence in lustful habits, or they have poisoned their healthful blood by alcohol and tobacco, or they have never tried to control their

selfish propensities, or circumstances have been such that they have grown up from childhood in vice without having had helping hands to guide them into the ways of a better life. Whatever may have been the primary causes of a tendency to do evil, it is a fact that the most abandoned criminals have lived the most intemperate and immoral lives. Had they never tasted a drop of alcohol, even though they may have had an imperfect organisation, yet they need not have led immoral lives. If it can be proved that a man once had moral sense and has lived so as to destroy it, then he should be recognised as unfit to be at large in society, and should be confined in an institution. It is as natural to be born with moral sense as to be born with an appetite, an intellectual nature, and social faculties; and every individual who is not an idiot by birth has enough of the moral faculties to know right from wrong, and hence is more or less responsible for his actions.

THE REV. W. J. DAWSON AND PHRENOLOGY.

THE following extract bearing upon phrenology is taken from the August number of *The Young Man* :—

I may add that I don't think it will do any young man much good to fiddle himself with phrenology, and get a map of his head by way of discovering for what work he is best fitted in life. I do not say that phrenology may not have some fraction of scientific truth in it, but taken in this way it simply becomes a pretty little game, and is much akin to fortune-telling. What good can it do you to be told that you are weak in concentration, or strong in vivaciousness (whatever that may be), that you have stability but are not stubborn, etc., etc.! Moreover, most of the men who profess to divine these qualities in you are harmless quacks, and I would as soon give a gipsy a sixpence to read my hand, as a phrenologist a half-crown to feel my head. You had best leave all this alone. A study of yourself will reveal to you quite enough of what your weaknesses are, and wherein lies your strength. It is one of those morbid impulses of youth which sends you to the phrenologist, and makes you take him for a prophet. One day you will laugh at it. Probably your friend the phrenologist laughs at it (in his sleeve) already.

The indictment is apparently rather crushing, but I think we shall survive. It seems as though the learned and reverend gentleman had been fuddling with phrenology himself, or he would not have made a mistake or two in the nomenclature. Even old men sometimes have morbid impulses. The rev.

gentleman can please himself how he disposes of his money. We shall not starve if we do not get his half-crown. I think phrenologists can afford to laugh (in their sleeve) at such criticisms as the above. Shakespeare tells us that "those laugh that win," and I think phrenology is making progress despite the sneers and gibes of uninitiated pedagogues.

But, seriously, I regret to find a great mind prostituted to such ignoble purposes. Every day brings to me fresh evidence that phrenology is both true and beneficial. And, if this is so in my case, what must it be in that of others who have devoted upwards of fifty years to its furtherance. An equally great, if not superior, minister—the Rev. Henry Ward Beecher—attributed much of his success to a knowledge of phrenology, and there are thousands of individuals, on both sides of the Atlantic, who can testify to the benefits derived therefrom.

It is very easy for people to sneer at phrenology. Dr. A. Wilson described it as nonsense the other day, but when Mr. Webb, the esteemed President of our Association, challenged him to a public discussion, he refused to enter the field. It is, to say the least of it, cowardly to make statements they are not prepared to uphold.

It does not follow that phrenology is humbug, because it meets with opposition. It is what all men, anxious for the amelioration of human woe, and interested in the welfare of mankind, may expect. George Stephenson met with opposition in introducing the locomotive. Elias Howe was buffeted and tried in endeavouring to introduce the sewing machine. Edison, the famous electrician, has not found it all smooth sailing : neither shall we who are interested in, and devoted to, the science of phrenology. "Difficulty is one of the conditions of success." Let these criticisms make us more watchful and strenuous in our efforts. Let us see that there are no loose joints in our phrenological armour.

Even our present critic says : "I do not say that phrenology may not have some fraction of truth in it." A statement made, I suppose, because recent experiments by Professor Ferrier have done much to establish the truth of phrenology. "A fraction of truth" forsooth ! Well, I expect we ought to be thankful for small mercies.

We need not be discouraged by such criticisms as that of the Rev. W. J. Dawson. I recently examined a very gifted minister belonging, I believe, to the same Church. In reply to a written delineation forwarded to him, he writes : "Your readings are remarkably correct. My wife read your paper, and again and again said : 'True, true ; very correct.'"

Personally, I am resolved to leave no stone unturned until

it is fully recognised as a science by "The British Association" and similar organisations.

G. H. J. D.

Notes and News of the Month.

THE Autumn Classes in connection with the Fowler Institute will commence on Friday, September 12th. There will be 20 lessons in the course.

"A STUDENT OF PHRENOLOGY" has contributed the sum of £25 toward the extension of the Museum of the Fowler Institute. Acknowledged with grateful thanks.

PRIZE QUESTIONS.—We have pleasure in awarding the prizes as follows: 1st prize, Mr. Algernon Morgan, Monnaie de Bas, St. Andrew's, Guernsey; 2nd prize, Mr. A. E. Jarvis, 16, Alfred Street, Lincoln.

THE opening meeting of the Autumn Session of the Fowler Institute will be held in the Lecture Room, Imperial Buildings, on Monday, September 8th, at 7.30, when W. Brown, Esq., of Wellingborough, will read a paper on "The Nose: Its Structure, Use, and What it Indicates," with sketches. Members and their friends are invited.

The Review of Reviews is one of the most readable of the monthlies. There is not an uninteresting line in it, and there is something in it for everybody. It is essential to all who want to watch what is being done and thought in the world as a daily paper. The wonder is that nobody invented the *Review of Reviews* sooner. To say what it contains would fill up several pages of this Magazine.

IN a little book just published by Kegan Paul and Co., Mr. F. Jordan divides humanity into two classes—"the impassioned and the unimpassioned." The former may be distinguished, as a rule, by abundant hair growth, both on the face and head, more or less pigmented skins, and flat or concave backs; the latter by scanty hair growth, thin skins, and a convex curve of the spine. Mr. Jordan

attributes many of the unhappy marriages which occur to the mating of impassioned with unimpassioned persons. He says : "One boon will at any rate follow a knowledge of the anatomy and physiology of the impassioned and unimpassioned temperaments ; and of those who are neither the one nor the other, the chooser in the marriage choice will choose with open eyes." One man will say, "here is an estimable, well-ordering woman, but life to me without ardent affection given and received, and without warm sympathy is of little value." It is possible that another man may say, "I prefer an active, industrious woman, who will solve for me all social difficulties—one who will not trouble me with foolish sentiment !" What a blessing, exclaims *The Lancet*, Mr. Jordan will have conferred upon humanity if it can be proved that any rule of this sort is to be depended on, and if men and women can be induced to follow it.

Correspondence.

To the Editor of the PHRENOLOGICAL MAGAZINE.

DEAR SIR,—Permit me to gratefully acknowledge, through the medium of the MAGAZINE, the receipt of a copy of the pamphlet by Mr. Webb, President of the British Phrenological Association, entitled "Phrenological Aspect of Modern Physiological Research." It is a good and useful contribution to the literature of phrenology, and has made its appearance at the right time.

Phrenology is on the eve of another great battle, and it behoves its veterans to prepare for the conflict. The bone of contention is not now as of old, whether phrenology is true or false, but which of the two phrenologies, the old or the new, is the true one?

Let the war cry sound, and the battle rage. If the hosts of Gall be thoroughly equipped, and valiant in the fight for truth, and it alone, victory is sure to crown their efforts. Preparation, however, does not consist simply in a little book knowledge. It is the possession of a complete scientific acquaintance with the subject, as well as a practical knowledge of the application of the principles.

Yours truly,

Edinburgh, July 17, 1890.

NICHOLAS MORGAN.

To the Editor of the PHRENOLOGICAL MAGAZINE.

DEAR SIR,—Will you allow me to call the attention of the readers of THE PHRENOLOGICAL MAGAZINE to one of Professor Nicholas

Morgan's discoveries—viz., "the centre of energy." This organ is located "at the base of the posterior lobe, immediately behind defensiveness" (combativeness), or where "conjugality" is located by the followers of Dr. Vimont. It is the sign of the "capability of the brain to generate and sustain motive power." I do not accept "conjugality" as an organ, believing it to be unsupported by either fact or logic. Having given careful attention for some months to the "centre of energy," I am fully convinced that it is supported by fact, and that a knowledge of this is of great value to phrenologists and their clients. I know many cases—and I meet with fresh ones weekly—where this organ is large, and the persons possess great powers of endurance, and very rapidly recover from illness. When the organ is small, there is a want of enduring energy, and a slow recovery from sickness and prostration. I wish to call the unbiassed attention of phrenologists to this important discovery, and I hope that a correspondence will open on the subject.

Yours faithfully,

CHARLES WILLIAM ABLETT.

July 14th, 1890.

To the Editor of the PHRENOLOGICAL MAGAZINE.

SIR,—I thoroughly approve of Mr. Coates' suggestion as to forming a "Phrenological Literary Union." It would make a strong co-operated body of "educated persons," and combat attacks from every quarter, as well as keep the public aware of the "phrenological position." Anything I can do to assist, I certainly will.

I am, Sir, yours truly,

ALGERNON MORGAN, M.B.P.A.

GALL'S SYSTEM AND PHRENOLOGY FROM AN INDEPENDENT POINT OF VIEW.

To the Editor of the PHRENOLOGICAL MAGAZINE.

The article under the above heading by Mr. Hollander, that appeared in the August number of the PHRENOLOGICAL MAGAZINE, deserves a passing notice. The author, by the title, would lead one to infer that he views the subject from an independent stand-point; and his mode of treatment verifies the statement. Moreover, he makes it clear that independence of mind does not necessarily imply unbiassedness. The article is strongly impregnated with hero-worship, a property that does not conduce to impartiality. Mark, I do not charge the author with being a worshipper of Gall, and a

traducer of Spurzheim ; but I do say he has unwittingly treated Spurzheim unfairly, put Gall's system on a pinnacle of honour, and phrenology at the base of disgrace.

The distinction Mr. Hollander has drawn between Gall's system and phrenology has no existence in fact. It is a pure offspring of fancy. He says—"The former embodies the anatomical observations and physiological researches of Gall ; the latter (phrenology), though intended by its originator, Dr. Spurzheim, to convey the doctrine of the mind, is for our generation at all events only a term for the art of delineating character from the formation of the skull." Here we have an expressed opinion, which ultimately may be proved true, and two very misleading statements. The casual reader is lead to suppose that Spurzheim originated phrenology ; and not only so, but that he did nothing else—that, in fact, the only part he played in the origination was to add something to it which has worked its ruin. For, according to the author, Gall laid the foundation of phrenology. "He recorded certain correlations which he had observed between excessive or very defective developments of particular brain areas and definite peculiarities of character, but he supported every one of his conclusions with facts drawn from other branches of science. Phrenologists, on the other hand, confined themselves more or less to skull developments without that strictly scientific method or such evidence as is admitted by learned men."

The logical inference to be drawn from this character is that Gall pursued a strictly scientific method ; and Spurzheim and his followers a rule-of-thumb method. What is the true state of the case ? The answer to this question brings to the fore the oft-repeated tale of Gall's life-work. He began, and continued to the end, to observe individual peculiarities of character, and to compare them with cranial development, and thus, as Mr. Hollander says, laid the foundation of phrenology. In these investigations he was led to study the anatomy of the brain, but required some help in dissecting it, and he employed a young anatomist in 1798, and Dr. Spurzheim to succeed him in 1800 ; and a few years afterwards Gall and Spurzheim became partners, and continued so until 1813, when Gall settled in Paris, and Spurzheim travelled as a phrenological propagandist.

Now, observe that Spurzheim was the dissector and demonstrator of the anatomy of the brain during his immediate connection with Gall, (1) as his assistant for about four years, and (2) for nine years as his partner, and as such took part in all the transactions, all his anatomical observations and physiological researches. Moreover, they published, in their joint names, as authors, a large and profusely illustrated work on the anatomy of the brain, respecting which Spurzheim says :—"All the drawings were executed under my superintendence from anatomical preparations made and determined on by me ; the engraver worked by my directions ; no plate was sent to the press without my approval ; the descriptions of the plates and the anatomical plates are mine ; and I furnished the literary notices

in regard to the nerves of the abdomen and thorax, to those of the spinal column, of the five senses, of the cerebellum, and of the brain."

Besides, Spurzheim introduced the new method of dissecting the brain into this country, and gave practical demonstrations in London, Edinburgh, and other cities. But not a word respecting this part of his laborious life is noted by Mr. Hollander. Worse than this neglect, he, inferentially, includes Spurzheim in the following clause, "Phrenologists, on the other hand, confined themselves more or less to skull-developments, without that scientific method or such evidence as is admitted by learned men."

Mr. Hollander remarks : "Dr. Gall was an anatomist, physiologist, and pathologist." But with respect to Spurzheim, he fails to recognize any fact worthy of note, excepting that he was Gall's assistant, and "deserted him to win fame for himself." He further charges him with "building a doctrine on Gall's original researches," and adds : "The new doctrine was rejected, and the abuse which Spurzheim had to suffer reflected upon Gall, and ruined both." So, instead of acknowledging that Spurzheim rendered Gall or his system any service, he improperly charges him with ruining both.

Dr. Gall was certainly a remarkable man, and won immortal fame. But that fame will not be increased by tarnishing the lustre of Spurzheim's.

Now, as to Gall's system, it "embodies the anatomical observations and physiological researches of Gall." Well, it developed to this, but evolved from crano-physiognomy, or "bumpology." Another branch sprang from the same root. What is this? A mental philosophy. In his search for cranial protuberances and indentations, in order to find external indications, or organs of judgment, understanding, will, etc., and failing, he cast the prevailing notions of philosophy to the winds, and, relying on observation and induction, he ultimately, with the assistance of Spurzheim, laid the foundation of a new philosophy, which Spurzheim, after Mr. Forster, designated phrenology, or he adopted this term.

Mr. Hollander continues: "The phrenologist who says, for instance, that the organ of conscientiousness is deficient, has no means of verifying his statement . . ." "Organs exist hypothetically: we cannot demonstrate them by any recognized method." Let us now turn to the July number of this year, and we will find an able and truly good article by Mr Hollander, titled "Plurality of Functions," &c., which begins thus:—"Almost a century ago the great anatomist and brain physiologist, Dr. F. J. Gall, demonstrated the fact that the various fundamental faculties of the mind are dependent on definite parts of the brain." By what method then did Gall give this demonstration nearly a century ago ? The statements in these two articles regarding demonstrations appear to contradict each other.

As a proof of the superiority of Gall's system, Mr. Hollander gives a verbal illustration. He says—"Dr. Gall observed, for instance, the posterior part of the second frontal convolution, or rather that part of

the skull which corresponds to it, to be prominent in mimics. This observation can be verified by various methods. The phrenologist asserts that there is an organ of imitation in a particular region of the head ; he can show the approximate situation on the skull." But the existence of such an organ "is hypothetical : no method has yet been discovered to demonstrate its situation." Then, if this is the case, Gall never demonstrated the existence, nor the situation of a single organ, nor did any other person. Nevertheless, phrenology stands as a rock of adamant, unscathed, and unscathable. But if neither the existence nor the situation can be demonstrated, why did Gall make use of the term, organ ? Why did he assign to certain cranial protuberances definite cerebral areas as organs of the mind ? And why do we continue to speak and write of organs, the existence of which is undemonstrable ? I answer, because there is always at hand a reasonable amount of evidence in proof of the existence of such organs, and of their functions and situations ; and further, because we know that Gall's observations of concomitance between certain forms of skull and definite phases of emotion and intellect have been verified, and still may be.

I observe Mr. Hollander has made a mistake as to the location of the organ of imitation. It is in the inferior fold of the first frontal convolution, and not in the second convolution as he describes.

The article affords more matter for criticism, and some for commendation, but let this suffice.

NICHOLAS MORGAN.

Book Notices.

Glimpses of Fifty Years. This is the title of the Autobiography of Frances E. Willard. The book has been published by the Women's Temperance Publication Association, Chicago. It is a book of real literary refreshment. The honest record of the "welcome child, the romping girl, the happy student, the roving teacher, the tireless traveller, the temperance organiser, and lastly, the politician and advocate of woman's rights." This record of a strong, noble, and womanly woman had been asked for repeatedly, and we are the gainers of the fulfilled request. The "Glimpses" begin in the far-out West, in the pioneer time of fifty years ago. Few mothers can compete with Mrs. Willard for the interest she took in the rearing of her family, hence we find in Frances E. Willard's life and work a culmination of rich parental endowment, culture and freedom of thought. The book contains an account of "the Woman's Crusade" of 1874 against the liquor traffic, and the continuation of that crusade through the efforts of the Women's Christian Temperance Union. Men and women whom Miss Willard has met are chattily described,

The book is fully illustrated with steel and coloured plates, including portraits of distinguished men and women of those days ; of Miss Willard's "den" in Rest Cottage ; of many of the W.C.T.U. banners of the various States, which greatly add to the interest, value, and charm of the book. All who wish to examine the remarkable record of a great and unselfish life should read the pages of "Glimpses of Fifty Years. 1839 to 1889." This book can be obtained in England, at the office of the PHRENOLOGICAL MAGAZINE, Imperial Buildings, Ludgate Circus, E.C.

THE number of lunatics chargeable to the unions in Lancashire at the beginning of the present year was over nine thousand. Dr. Cassidy tells us that in seventeen hundred cases admitted to the asylums the causes of mental disease were assigned, and that an analysis of these shows that in the great majority of instances the causes were physical and not moral. Under the former head, intemperance in drink takes the leading place, and hereditary insanity the next. These conclusions are confirmed by Dr. Ley, whose contributions to our knowledge of this subject are unhappily not very cheerful. According to this experienced authority the type of insanity has of late years markedly changed, and many kinds which may be termed incurable from the day of their development are more common now than formerly. Insanity associated with epilepsy, such as is met with in asylums, is nearly always incurable, and general paralytics are a class who usually go from bad to worse. The statistics of Dr. Ley's asylum show that the proportion of patients suffering from organic brain diseases among the admissions have more than doubled within the last twenty years. It is a curious fact that the Irish peasant, in his native country, has a marked immunity from these fatal forms of brain disorders, but when transplanted into centres of labour and activity in Lancashire or Middlesex he is often apt to break down and acquire a form of mental disease, progressive in its nature, and little susceptible of cure.

WHEN will the time come when we as a race will understand the importance of the direct influence of alcohol upon the brain, and its indirect influence through hereditary insanity ? The more publicity given to reports like the above, the greater the arrest of individual thought upon the vast evil accruing through the indiscriminating use of alcohol. These words of Dr. Ley's should be well weighed and considered. Old prejudices must be first uprooted before there will be healthy soil to receive the seedlings of truth regarding "the effects of alcohol on the brain."

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions :—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs ; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent ; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

QUEENSLAND.—You have an intuitive cast of mind and a natural insight into character and disposition. If you could be employed where you could superintend, you would be able to use your gifts to great advantage. You have also a mind that is capable of high culture. You have a great thirst for knowledge, great powers of criticism, more than ordinary intuition of mind, and a desire to do good and help to promote human happiness. You have a great amount of individuality of mind, and you are always searching into some new truth, or investigating some subject that has not been fully explained. If you could secure sufficient education to lecture and talk to people on subjects that would benefit them, you could do more good than in any other way ; but supposing circumstances are not favourable for this sphere of life, you will always take pleasure in studying character and human nature. You will be obliged to suit yourself as well as you can to your situation, and make the most out of your abilities with your surroundings and education, but you have natural mental capacity that you can turn to account in throwing out ideas for others to put into practice. You can succeed as a builder, overseer, or manager of men, and you had better secure such a position, especially in a mechanical direction.

M. M.—You have a working organization, are one of the restless, uneasy kind ; should not go into a business where you are obliged to adapt yourself to sedentary habits. You need to be out on your feet, mixing up with men and with active work. You would make a first-class agent ; should readily acquire knowledge from observation ; are quick to understand a subject ; are forcible and thorough in your style of talking ; but you need more uniform force of character. You are not wanting in will-power, manliness, and independence ; but you need larger destructiveness to enable you to be thoroughly executive. Your head is too narrow and too high to be well-balanced. You have not a high order of worldly wisdom, of tact and management, of power to acquire and keep property ; you will do better for others than for yourself. Your memory does not serve you with reference to details, but you enjoy travelling. You are versatile in talent, can turn your hand to many different things and suit yourself to circumstances. You appear to have strong feelings of reverence

and respect, and a high order of sympathy and tenderness of feeling. One of your strongest desires is to do good, and you will eventually find yourself strongly inclined to teach or preach, for you have a public spirit that cannot very easily be snubbed.

ROMEO has a high degree of the mental temperament. His character is positive and distinct, and he has a marked individuality of his own ; cannot easily merge into the spirit of another. He will not be so likely to follow others, as others will be to follow him. He possesses a predominance of the active forces. It would be next to impossible for him to take life in an easy way. He is forcible and copious in his style of talking, and generally has plenty to say, and others are disposed to listen when he talks. He has a practical, available talent, soon learns to do new things, and is adapted to a variety of business. He could not conveniently settle down to one thing, and stay in the house and be content ; he would be more in his element travelling, going about and coming in contact with men and business. He has a superior organization for a commercial traveller, or agent in some department of business. He is quick to take a hint, to see the bearing and relationship of one subject to another. His mind culminates on a subject very quickly, he can answer a question without waiting to think. He sees the full force of a thought or truth as soon as it is uttered. He is thoughtful, sanguine, and feels sure it will be all right. He knows things intuitively, and it is not even necessary for him to stop and think long about a subject. His moral brain is large enough, if properly exercised, to regulate his conduct, and to give him an elevated tone of mind. He is specially firm, persevering, and positive. Although he is not particularly proud and haughty, yet his character is so distinct that he appears to be more haughty than he is. He has all the force and energy necessary to do all that he has the strength to do, and he is liable to go beyond his strength in order to accomplish what he started to do. He is quick to resent encroachments upon his rights ; he is alive to the difficulties and dangers around him ; has more than average taste with reference to style and perfection of work ; is naturally neat and orderly ; and has good talents for book-keeping and making up estimates. He is very well qualified to organise, plan, and execute work.

JULIET has a predominance of the vital temperament ; is organised to live and enjoy life ; is full of feeling, emotion, sentiment, sympathy, and love. She is a magnet, and draws others to her ; she makes friends without making any enemies. She is almost too mild and pliable ; a little larger destructiveness could be exercised without any damage. She cannot hate with any degree of strength, hence she is successful in making friends. She is characterised for frankness, candour, sincerity, and openness of mind ; is almost too confiding, and liable to think that others are just as honest as they say they are. Her intellectual powers will give her the judgment that is necessary from day to day. She will improve much in planning, organising, and

laying out work. She has the elements of good sense and discrimination of mind ; will readily see the fitness of things, and if necessary can take the lead and plan the work for others to do. Her memory of outlines and past scholastic studies is not so good, but her power to understand and take in ideas is quite good. The strength of her character will be manifested in the social and domestic channel. She will sustain herself in any labours of life where sympathy and charity are required. She will be a favourite in the sick chamber whether she likes to be there or not, for her presence will never be offensive. She is long-lived, quite healthy, and ambitious. She can improve somewhat by paying more attention to deep and full breathing and chest exercises, for she is not so tough as she is healthy. She is not well qualified to rough it and endure hard labour. She was designed to be a wife and mother, a missionary, nurse, or doctor. The temperaments of the two are such as to afford a very perfect adaptation to each other. . She will exert a beneficial influence over him, and he over her ; only the influences will be different. The chances are that it will be a very happy marriage if they devotedly love each other. She, however, will crave all the attention and caresses that he will bestow on her, for it never comes amiss for her friends to show their appreciation of her, not because she is vain and wants to be petted, but because she is so friendly and wishes to exchange friendship, and thus entertain and be entertained.

FUNCTIONS OF THE BRAIN.—The result of the investigation of Dr. Donaldson, of the brain of a famous deaf and dumb pupil of Dr. Howe, is to substantiate several theories which medical functions have advanced about the functions of the brain as an organ of thought. Conclusive evidence is adduced to prove that the brain is an intricate phonographic medium, which registers all that sight, hearing, taste, smell and feeling bring to it. [We call our readers' attention to an article which appeared in the September number of the MAGAZINE, which was written by a doctor of wide experience, for it well endorses the above statement of Dr. Donaldson.]

A MAN WITH AN INCH OF STEEL IN HIS SKULL.—A remarkable specimen has (says the London Correspondent of the *Manchester Guardian*) recently been added to the museum of the Royal College of Surgeons. It is that of a portion of a man's skull from the internal surface of which is projecting an inch of the blade of a pocket knife. There is some history of an injury having been received a year before the man's death, but nothing more than this is known to account for the presence of the piece of metal. No symptoms were manifested during life pointing to the remarkable condition of things which was casually discovered after death ; and for upwards of twelve months the man was living with an inch of steel in his skull and in close contact with the brain. The knife blade had presumably been forcibly thrust through the bone and had broken off short. The man died of phthisis, quite independently of the injury he had received.

THE Phenological Magazine.

OCTOBER, 1890.

MR. BLACKBURNE.

THE general organisation of this gentleman is favourable to balance of power, presence of mind, patience, and perseverance. He is characterised for length rather than breadth, hence there is less of the im-



(Winner of the First Prize at the Berlin Chess Tournament.)

pulsive, excitable, and forcible, but more that gives stability, perseverance, application, practical talent, and presence of mind. His head is rather narrow, which indicates that he is

not so particularly worldly-wise, cunning, grasping, or conservative. He is not a timid man, but one that acts with considerable promptness, yet with correctness, because he is not excitable and impulsive. His perceptive intellect appears to predominate, which makes him acquainted with all that the eye can see, and enables him to judge accurately of the conditions of things. Language being large renders him free-and-easy in expression, so that if he were to devote himself to public speaking he would eventually become successful. He has an intuitive rather than a philosophical mind, possesses more than an average amount of sagacity, penetration, and discernment of truth or of results beforehand.

His imagination is favourably developed, but not of the extravagant kind ; there is in fact more general elevation of mind than there is copiousness, and that elevation gives stability rather than the copiousness giving extravagance. Order and calculation are large, and must have a powerful influence on his character.

So near as can be judged, the moral brain is rather large, and has a modifying influence on his life and actions ; in fact, his moral brain helps to give him character, stability, and self-government ; he is not easily carried away with mere impulsive excitement. There must be great uniformity of character throughout ; taking one day, month, and year with another, he does not change much, but goes steadily along. If he were to give his attention to any other subject besides chess, where it required application, perseverance, sagacity, and practical talent, he would do equally well. He excels in this one thing more because he has given his mind to it and concentrated his forces in that direction and not in others, but the temperament is favourable to success in this department because it helps to give him presence of mind. Self-esteem and firmness appear to predominate over approbative ness and cautiousness, hence he is a little less vain, sensitive, and affable, a little less anxious, cautious, and susceptible, and more self-relying and self-possessed. It is to be hoped that he will prove himself equally successful in that which will be of still greater importance to society than to be number one in chess-playing.

L. N. FOWLER.

MR. HERBERT SPENCER ON PHRENOLOGY.

IN my last article, entitled "Gall's System of Phrenology," I have tried to assume the independent position of a scientist and criticise our doctrine. I pointed out that it is erroneously

supposed by many scientists that Gall's system and phrenology are one and the same, and that because the latter has been rejected, the former has equally little to recommend itself. Few men are aware of the existence of that wonderful work : "The Anatomy and Physiology of the Nervous System in general, and the Brain in particular," in which Gall published the results of 30 years' labour, and which ought to have been translated by Spurzheim before he built his doctrine of phrenology upon it. He himself acknowledges in the preface to his first English work, that Gall's books are rather anatomical, and that he is looking more at the deductions which can be drawn from his collection of facts in order to create a perfect doctrine of the mind. Yet, by extending principles which were yet in question, by philosophising instead of experimenting, he made the acceptance of Gall's system more difficult ; and the defects of Spurzheim's speculations reflected upon Gall.

No one has recognised this fact more than Mr. Herbert Spencer. He started like one of us ; he made his own observations, he collected facts and drew his deductions from them, with a view to improving the phrenological doctrine. He wrote a number of articles on our subject, in which he demonstrated his faith in Gall's system, though he frequently questions Spurzheim's and Combe's deductions. Thus in 1844 he wrote :—

"By way of apology for opposing a received phrenological doctrine, it may be urged that considering the comparatively short time that has elapsed since the discovery of a true system of mental philosophy, it is extremely probable that the details of that system should be all of them, or nearly all of them, correct. No science has at once attained to the fulness of truth ; and, as in the earlier days of chemistry, many of the simple bodies were unknown, and many of the compound ones were believed to be simple, so in the present stage of phrenology there are doubtless some of the primary faculties yet unrevealed, and some of their combinations that are taken to be elementary. We may, moreover, conclude that each of the several mental powers will be ultimately found, simple in quality, easily comprehensible, and capable of exact definition."

However, Mr. Herbert Spencer was in 1844 not what he is to-day, the greatest philosopher of England, and the phrenologist did not regard his criticism and suggested improvements as of any significance ; nay, more, they treated him with contempt. Great men, as a rule, are very sensitive, but few would have thought of revenging themselves. What has our philosopher done ?

He made use of the essence of phrenology, the kernel which he knew to be perfect, and left all questionable details aside. But in what did the revenge consist? In the use of the best that the doctrine contains without acknowledging the source. "Indeed," he says of phrenologists in 1881, "the crudity of their philosophy is such as may well make men who to some extent agree with them, refrain from avowal of their agreement: more especially when they are met by so great an unwillingness to listen to any criticisms on the detailed scheme rashly promulgated as finally settled."

In 1855, that is, at a time when Sir William Hamilton's and Flourens' views reigned supreme, the former saying that "no assistance is afforded to mental philosophy by the examination of the nervous system," and the latter that "the brain is a single organ," Mr. Herbert Spencer brought out a work—"The Principles of Psychology"—in which he demonstrated the very opposite of these views, and advocated not only that "the brain is the organ of the mind," but the "plurality of the functions of the brain," the existence of nerve-centres as seats of the emotions, etc. Indeed, to my mind, "The Principles of Psychology" are the "principles which lie at the foundation of Gall's system." It is one of the greatest phrenological works we possess, certainly the most scientific.

Had he only acknowledged the fact that his ideas are phrenological, or that he has derived them from Gall, his work—just appearing before Combe's death—would have prevented the decay of our doctrine. However, he is silent as to his authorities; he makes no references in his work, a fault which other men, some of eminence, have pointed out to him. Thus Dr. Maudsley says:—

"As Mr. Herbert Spencer does not on any occasion give references to or make quotations from authors who have preceded him, but works up their results systematically into his lucid exposition, those who gain all their knowledge of philosophy from the most recent and popular expositions of it, and ascribe to their authors all they find there, are prone to think original that which is often a legacy from the past. This practice of ignoring authorities, though it no doubt has its conveniences, bears hardly and disagreeably sometimes on those who may have occasion to write upon the same subjects, inasmuch as they are liable to be charged by ignorant persons with borrowing from an eminent contemporary what the contemporary has really derived from the same well-known source, and would not claim as his own. This is trying. The most serenely panceptic appropriator of the fruits of past thought will become recalcitrant when he is charged with specific

appropriation of material, not from the real proprietor of the property, who may perhaps not be known by name, but from one who, indebted for it to the same sources in the stores of the past as himself, does not make specific acknowledgments."

Contrary to the method employed by his English rival, Auguste Comte, the greatest of French philosophers, acknowledges that his psychology is based upon Gall's system, and wherever he can he pays tribute to his genius. Well, if both Comte and Spencer took Gall as their authority, what can we expect? Resemblances in their philosophy, of course. And that is the case. When Mr. Spencer's works were criticised in France, Mr. Auguste Langel, of the *Revue des deux Mondes*, described our philosopher as a follower of Comte, and said that Comte's influence is easily recognisable. Mr. Spencer protested against this view in the *Westminster Review*, and gave his "Reasons for Dissenting from the Philosophy of Comte." To be sure, if both men owed their leading ideas to Gall, one cannot be described as a follower of the other. It is an injustice to Mr. Herbert Spencer, but he deserves to be blamed for his reticence in giving his authorities and making quotations. Curiously to observe, Mr. Spencer in his protest says that, if he can trace any ideas to any particular teacher, he owes them to Sir William Hamilton. I must be forgiven for questioning this statement, for the Scotch metaphysician, Sir William Hamilton, the same philosopher who is supposed to have given the death-blow to phrenology, held opposite views to those of the author of "The Principles of Psychology," at least with regard to physiological psychology. My impression is, that Mr. Herbert Spencer's teacher was Dr. Gall. To show the harmony between the former's psychology and the latter's "Anatomy and Physiology of the Nervous System in general and the Brain in particular," must be the subject of a separate paper.

No doubt Mr. Spencer was considerably influenced by Flourens' statements, and later by Dr. Hughling Jackson's observations, at least as far as actual localisation is concerned. "That those who have carefully investigated the structure and functions of the nervous system should have long ago turned their backs on phrenology is also not to be wondered at; seeing how extremely loose the phrenologists are in their methods of observation and reasoning, and how obstinately they ignore the adverse evidence furnished by experiment." Yet my readers who are acquainted with modern physiology will remember that this adverse evidence of Flourens', to which Mr. Spencer refers, has been set aside since 1870. Our philosopher seems not to have been much impressed by this

evidence—*i.e.*, experiments which appeared to demonstrate that the brain is a single organ. For this reason he continues: “Nevertheless, it seems to me that most physiologists have not sufficiently recognised the general truth of which phrenology is an adumbration. Whoever calmly considers the question cannot long resist the conviction that different parts of the cerebrum must, in some way or other, subserve different kinds of mental action. Localisation of function is the law of all organisation whatever; and it would be marvellous were there here an exception. If it be admitted that the cerebral hemispheres are the seats of the higher psychical activities; if it be admitted that among these higher psychical activities there are distinctions of kind, which, though not definite, are yet practically recognisable; it cannot be denied, without going in direct opposition to established physiological principles, that these more or less distinct kinds of psychical activity must be carried on in more or less distinct parts of the cerebral hemispheres. To question this is to ignore the truths of nerve-physiology as well as those of physiology in general. It is proved, experimentally, that every bundle of nerve fibres and every ganglion has a special duty, and that each part of every such bundle and every such ganglion has a duty still more special. Can it be, then, that in the great hemispherical ganglia alone, this specialization of duty does not hold? That there are no conspicuous divisions here is true*; but it is also true in other cases where there are undeniable differences of function—instance the spinal cord, or one of the great nerve-bundles. Just as there are aggregated together in a sciatic nerve an immense number of fibres, each of which has a particular office referring to some one part of the leg, but all of which have for their joint duty the management of the leg as a whole, so, in any one region of the cerebrum, each fibre may be concluded to have some particular office which, in common with the particular offices of many neighbouring fibres, is merged in some general office, fulfilled by that region of the cerebrum. Any other hypothesis seems to me, on the face of it, untenable. Either there is some arrangement, some organisation, in the cerebrum, or there is none. If there is no organisation, the cerebrum is a chaotic mass of fibres, incapable of performing any orderly action. If there is some organisation, it must consist in that same ‘physiological division of labour’ in which all organisation consists; and there is no division of labour, physiological or other, but what

* What are the different convolutions but divisions of the brain?—(B. H.)

involves the concentration of special kinds of activity in special places."

Among fundamental objections to the views held by phrenologists, the first to be set down, Mr. Herbert Spencer accurately observes, is "that they are unwarranted in assuming precise demarcations of the faculties. The only localisation which the necessities of the case imply, is one of a comparatively vague kind—one which does not suppose specific limits, but an insensible shading off." I think Dr. Gall held the same view, and that the lines of demarcation were originally intended to be an assistance to the student of phrenology. The mischief was done, when the commerce in phrenological busts begun, but surely a great mind as that of Mr. Herbert Spencer's must have been aware that no such demarcations exist in reality, in fact that no "organ" could be mapped out on the head with scientific accuracy with border-lines. One organ merging into the other is a frequent observation, of which every practical phrenologist is conscious.

These are Mr. Spencer's principal remarks on phrenology. As already pointed out, however, just those parts for which no authority is given sound very often the most phrenological. For instance, his remarks on Free-Will differ in no way from those made by Gall, Spurzheim and Combe. He is quite at one with them in treating mind as the subjective aspect of objective nervous changes, in taking psychical as well as physical characteristics to be hereditary. The same applies to his observation, that inaction and excessive action of a faculty cause pain, etc.

I have already overstepped the limit of my article. All I will add is, that the process by which Mr. Herbert Spencer constructed his psychology—if known to us, would form a most interesting chapter in the history of phrenology.

BERNARD HOLLANDER.

PHRENOLOGY
PROVED, ILLUSTRATED, AND APPLIED.
(Continued.)

SHAPE OF THE ORGANS.

Each mental faculty, as has been already shown, is manifested by means of two organs, occupying a corresponding portion of each hemisphere of the brain. The same principle of double organs obtains here, as is exemplified in the case of the eye, the ear, &c., and, doubtless, for the same good reason, namely, that when one organ is injured, the other may perform the function. In shape, the organs

are conical, their apex being at the medulla oblongata, and their base at the skull. The medulla oblongata is situated at the base of the brain, or, rather, forms the capital of the column of the spinal marrow. A straight line drawn from the opening of one ear to that of the other, would pass nearly through it.

A more particular account of the anatomy of the brain, as connected with phrenology, may be found in Dr. Gall's and Spurzheim's phrenological works, and in G. Combe's "System of Phrenology."

It has already been shown, that the power of each faculty, and its tendency to action, are proportionate to the size of its respective organ. In order to determine the size of the organs, it is necessary to ascertain their length and their breadth. The length of the organs may be determined by observing the distance from the external opening of the ear to that part of the skull in which they terminate ; and the breadth, by the surface of the skull they occupy. It is supposed that the portion of an organ which is nearest to the skull, is chiefly used in the exercise of the mental functions.

In some heads, the organs are sharper and more elongated than in others, thus presenting a greater prominence ; in others, they are shorter and broader. The shape of the former, denotes greater activity and quickness, and less power ; that of the latter, greater intensity and strength.

TEST OF THE FACULTIES.

Before we enter upon the classification or description of the several faculties, it will be necessary to lay down some rules by which to test each supposed faculty, that we may thus be able to decide correctly, not only upon the claims of the faculties as now laid down by phrenologists, but also upon all that may be hereafter proposed as discoveries.

What is a faculty ? The test which was proposed by Spurzheim, and which is generally followed, is that

1. Which exists in one kind of animals and not in another ;
2. Which varies in the sexes of the same species ;
3. Which is not proportionate to the other faculties of the same individual ;
4. Which does not manifest itself simultaneously with the other faculties ; that is, which appears or disappears earlier or later than they ;
5. Which may act or repose singly ;
6. Which individually is propagated in a distinct manner from parents to children ; and,
7. Which singly may preserve its proper state of health, or be affected by disease.

These seem to be descriptions of the phenomena of a faculty, rather than a definition of its nature. A more simple and comprehensive test seems to be,

That power of the mind which performs one, and but one, distinct and homogeneous class or kind of functions and which is manifested

by means of a given portion of the brain. Whenever, therefore, we ascertain that there is exercised a distinct class of functions, having for their end one important object, we may infer, that there exists a distinct faculty which performs it ; and, *vice versa*, that the existence of a faculty presupposes, and necessarily implies, a corresponding *sui generis* class of functions which this faculty produces. Upon submitting the faculties as laid down in this work, to this test, it will be found that the functions ascribed to amat., combat., acquis., benev., hope, firm., caus., and all the rest, constitute each a distinct, homogeneous class directed to a specific end, and exercised by so many distinct portions of the brain, and each supposed discovery of a faculty, which does not conform to these requisitions, is spurious.

CLASSIFICATION OF THE FACULTIES.

The classification of the faculties was last adopted by Spurzheim, and followed by G. Combe, and American and English phrenologists, is unquestionably the best now in use. In its general divisions and fundamental principles, it harmonizes very well with the generic character of the faculties, and the grouping together of the organs in the head.

Phrenology is not a man-made theory. All that we can know about it, is learned from an observation of nature. Why not, then, in the classification of the faculties, as well as in their phenomena and analysis, follow nature ? or, in other words, why not let the faculties classify themselves according to the grouping together of their respective organs in the head ? In the classification of the faculties, the authors have endeavoured, as far as observation enable them, to follow this arrangement of the organs, as the fundamental principle upon which their divisions are based.

CLASSIFICATION OF THE PHRENOLOGICAL FACULTIES AND ORGANS.

The faculties are divided into two orders, and these are subdivided into several genera, and these again into various species.

ORDER I.—AFFECTIVE FACULTIES, OR FEELINGS.

From these faculties originate the propensities, desires, emotions, sentiments, and the whole range of those mental operations denominated feelings. They constitute by far the largest, most vivid, and most powerful class of the mental operations, and, whenever their legitimate stimuli are presented, rush into involuntary activity, and frequently without awaiting the mandate of reason.

Genus I.—Propensities.

These embrace those mental functions which pertain to man as an animal, or to his physical relations. They stimulate the other faculties ; impart efficiency, impetus, and physical force to the whole character ; originate the various animal impulses, instincts, desires, passions, and propensities to act ; and are located in the inferior posterior, or back and lower, portion of the head, causing, when large or very large, great breadth and fulness between, behind, and over

the ears ; but, when small, this portion of the head is thin and narrow, as in the head of Franklin. Nearly all the brain of animals is developed in this region ; and their characters are made up, chiefly of the functions pertaining to the corresponding faculties.

Species I.—Domestic Propensities.

They are,

	Abbreviated.
1. Amativeness,	amat.
A. Conjugalitv,	conj.
2. Philoprogenitiveness,	philopro.
3. Adhesiveness,	adhes.
4. Inhabitiveness,	inhab.
5. Concentrativeness,	concent.

These constitute man a gregarious animal ; lay the foundation for his civil institutions ; make him a social and domestic being ; create his family attachments and relations ; have a direct reference to the marriage state, and originate most of its duties, its relations, and its pleasures. When large or very large, they cause an elongation and fulness in the middle and lower portion of the back part of the head ; but when they are small, this part of the head presents a depressed and flattened appearance, as in the skull of the male Indian represented in the cuts. Concentrativeness is unique in character ; and acts as a kind of regulator or modifier of all the other faculties.

Species II.—Selfish Propensities.

The selfish propensities are,

	Abbreviated.
E. Vitativeness,	vitat.
6. Combativeness,	combat.
7. Destructiveness,	destruct.
8. Alimentiveness,	aliment.
9. Acquisitiveness,	acquis.
10. Secretiveness,	secret.

These provide for the various animal wants ; have a direct reference to the necessities, desires, and gratification of the individual possessing them ; and terminate upon his interests, wants, and happiness. They are located upon the sides of the head, around the ears, and, when large or very large, give it a thick and rounded appearance, and make the sides of the head spherical, but when moderate or small, the head is thinner and more flattened in this region.

These propensities receive their direction and their modification mainly from the relative influence of the sentiments and intellect.

Genus II.—Human, Moral, and Religious Sentiments.

These are feelings of a higher order than the propensities ; are more elevating and ennobling in their character, and more humanizing in their influence. They are located together in the coronal or upper portion of the head, and, when large or very large, elongate, widen, elevate, and expand this part of the head ; but when moderate or small, the head is lower, shorter, and narrower.

Species I.—Selfish Sentiments.

They are,

11. Cautiousness,	Abbreviated. cautious.
12. Approbativeness,	approbat.
13. Self-esteem,	self-e.
14. Firmness,	firm.

These, like the selfish propensities, also terminate upon their possessor, and, by disposing him to seek his own individual interest and happiness, make him selfish; yet their character and manifestations are far superior to those of the selfish propensities, especially when the religious and reasoning faculties are strong. They are located together in the superior posterior, or back part of the upper portion of the head, which is represented by the name of the selfish sentiments.

Species II.—Moral and Religious Sentiments.

They are,

15. Conscientiousness,	Abbreviated. conscien.
16. Hope,	hope.
17. Marvellousness,	marvel.
18. Veneration,	ven.
19. Benevolence,	benev.

These faculties create those moral, religious, and devotional feelings and emotions which enter so largely into the human character; humanize, adorn, elevate, and soften the nature of man; constitute man a moral and accountable being, and connect him with the moral government of God; create those moral duties and relations which exist between man and his Maker, and also between man and man. They are located in the superior anterior, or the frontal, portion of the upper part of the head, and, when large, throw a proportionally large amount of brain into this region, elevating and elongating it in this direction, as in the case of Franklin; but when small, this portion of the head is narrow and slopes rapidly.

Species III.—Semi-intellectual Sentiments.

They are,

20. Constructiveness,	Abbreviated. construct.
21. Ideality,	ideal.
B. Sublimity,	subl.
22. Imitation,	imitat.
23. Mirthfulness,	mirth.

These faculties are of a mixed nature, participating the properties both of the human sentiments and of the intellectual faculties. They tend to the adornment and perfection of the human mind, by creating in it a taste and a talent for the fine arts and polite literature, for constructing, manufacturing, copying, and the like. They are located partly between the forehead and the portion of the head covered by hair, giving, when large, a fulness and breadth to this portion of the head; but when small, the head where the hair begins to appear, is narrow and flattened.

ORDER II.—INTELLECTUAL FACULTIES.

These faculties have to do exclusively with objects and things, their physical qualities, and abstract relations. They create a thirst for information, and furnish the ability to acquire knowledge in general; take cognizance of facts and conditions, and remember them, and constitute what is commonly called the intellect, understanding, or judgment.

Genus I.—Perceptive Faculties.

These perceive natural objects and their physical qualities, together with some of their relations. They constitute the direct medium of communication between the other faculties and the material world, and convey to the mind all the physical information it is capable of acquiring.

Species I.—External Senses.

They are,

Sensation, } (that is, feeling or touch.)
 Sight, } In accordance with the usage of his predecessors, the
 Hearing, } author has left these faculties unnumbered; but, inasmuch as they occupy each a given portion of the brain, and are also mental faculties, there evidently exists no good reason why they should not, in like manner, be numbered.

These perform the first portion of the process of observing the physical qualities of material objects. The eye, for example, may be perfectly good, yet the individual be utterly unable to distinguish between the colours of objects, or some of their other qualities; so that, in observing a colour, the faculty of sight performs the first portion of the process, and that of colour, the second. Hence, neither, acting separately, can take cognizance of the colour of objects. The perfection of all the senses materially assists the other intellectual, and even the affective faculties.

Species II.—Observing and Knowing Faculties.

They are,

	Abbreviated.
24. Individuality,	individ.
25. Form,	form.
26. Size,	size.
27. Weight,	weight.
28. Colour,	colour.
29. Order,	order.
30. Calculation,	calcu.
31. Locality,	local.

These store the mind with individual facts; furnish a general knowledge of things, their conditions, and qualities; collect statistical information; create a desire and a talent, proportionate to their size, for observing and knowing; and thus render very great assistance in doing every kind of business. They are located directly about the eyes—their principal medium of communication with the external world—and, when large or very large, cause the lower portion of the

forehead, above the eyes, proportionally to protrude, as in Herschell, the Indians, the New Zealander, the bust of Washington, &c., but when they are moderate or small, this portion is proportionally depressed.

Species III.—Semi-perceptive Faculties.

They are,

	Abbreviated.
32. Eventuality,	event.
33. Time,	time.
34. Tune,	tune.
35. Language,	lang.

These constitute a class of faculties intermediate between those which perceive objects and their physical qualities, and those which comprehend the abstract relations of things, and have to do with a class of facts which are not necessarily of a physical character. Some of these faculties are much stronger in children than in men, and their corresponding organs proportionally larger: hence, the depression generally observable in the middle of the forehead of the latter, and the fulness and roundness in that of the former.

Genus II.—Reflective or Reasoning Faculties.

They are,

	Abbreviated.
36. Causality,	caus.
37. Comparison,	compar.
C. Human Nature,	h. nat.
D. Agreeableness,	agree.

These form ideas; reason; superintend the operation of the other faculties; perceive abstract and metaphysical relations, the connexion between cause and effect, proposition and inference, &c.; form judgment, discover truth and absurdity; show sagacity, penetration, and intuitive power; add persuasiveness, youthfulness, and ability to entertain. They are located in the superior and frontal portion of the forehead. When they are large the upper portion of the forehead is very high, broad, and deep, as well as prominent, but when they are small this portion of the forehead is low, narrow, and depressed.

COMBINATION OF THE CLASSES OF FACULTIES.

The back part of the head, called occipital, is exclusively occupied by the organs of the propensities and selfish sentiments: the remaining portion is called frontal, and is devoted to the organs of the sentiments and the intellect. The portion represented by the lower portion of the head is called basilar, and the portion above it, coronal; the former being allotted to the organs of the selfish propensities and perceptive faculties, which constitute the principal faculties possessed by animals, and the latter, to those of the sentiments and reasoning faculties.

The influence of the various combinations of faculties upon the character constitutes one of the most important features of phrenology; and in nothing is this influence more manifest than in those more

general combinations of the various classes of faculties already mentioned. One in whom the occipital region (or the organs of the propensities and propelling powers), is much larger than the frontal, will have proportionally more of feeling than reason; of passion, than intellect; of propelling, than directing power; of efficiency, than depth and strength of intellect; of mental sail, than ballast; of zeal, and energy, and action, than judgment; of the animal, than of the intellectual and moral qualities; but when the occipital portion is smaller than the frontal, the character will be directly the opposite.

One in whom the basilar region greatly predominates over the coronal, will possess great force and efficiency of character, a ready talent for business and study, and strong passions applied to selfish purposes, but accompanied with less morality and elevation of character and feeling, less depth of intellect, with less of the moral, religious, and human sentiments; and yet, with full comparison and causality, may be capable of conducting and effecting important operations. This portion of the brain is generally large in men who distinguish themselves in the world.

One who possesses a much greater development of the moral and intellectual organs than of the propensities, will have goodness with less greatness or force of character, morality and virtue, joined with want of impetus, if not of efficiency; will have fine talents and a love for moral and intellectual pursuits, accompanied with so much modesty and dependence, if not actual tameness of character, that he will not be likely to rise in the world unless pushed forward by others, but may then distinguish himself; will be amiable and sentimental, if not eminently pious, yet effect but little. This organization is but poorly adapted to the exigencies of the nineteenth century.

One having large organs of the propensities and of the religious sentiments, and reasoning faculties only moderate or full, may struggle hard against the current of his propensities, yet will be liable to be often overcome by it; may endeavour to live a virtuous, Christian life, yet will be sometimes guilty of gross inconsistencies, and apt to take contracted views of religious subjects, and indulge alternately both classes of organs; but, with the moral and reasoning organs equally large, will be obliged to struggle hard, yet will generally struggle successfully against "his easily besetting sins," and in general, be consistent in his religious belief and practice.

One having the propensities well developed, with very large moral and intellectual organs, will combine great strength of mind with great energy of character, directed by the human sentiments, and applied to the advancement of moral and benevolent objects, and be a talented and useful member of society yet there will be many contentions for the ascendancy between his strong propensities and higher sentiments.

One with the propensities and the intellectual organs large and the moral deficient, will combine great power and energy of mind with great depravity of character, and never lack means by which to gratify his selfish passions.

One having some of each class of organs large or very large, will present seemingly contradictory phases of character ; will often do what he afterwards regrets, and be subject to a constant and severe “warfare between the flesh and the spirit.”

One having the perceptive organs generally large or very large, and the reasoning organs only full, will have a mind well stored with facts, and a desire to see and know ; a thirst for general information, and a facility in acquiring it ; an ability to attend to details, and a popular, practical, business talent, but will lack depth, judgment, originality, and penetration of mind ; may execute well, but cannot adapt means to ends, nor superintend complicated operations ; may possess versatility of talent, be a good scholar, and pass for a man of talents and learning, yet will not think profoundly nor readily comprehend first principles, nor bear sounding.

One with the reflecting organs large, and the perceptive only moderate, with the upper portion of the forehead much larger than the lower, will think more than he observes or communicates ; will have much more to do with ideas than with facts ; with fundamental principles and the general bearing of things than with their details and minutiae ; with the abstract relations than with the qualities of things ; with the analytical and demonstrative sciences than with the natural ; with thoughts than words ; may have great strength, shrewdness, and penetration of intellect, and be a deep and profound reasoner, but will lack versatility of talent, and be unable to employ his powers to good advantage, or show what he is, except in a certain sphere, yet will wear well, have a fund of important ideas, and excellent judgment, and shine in proportion as he is tried. One having the perceptive and reasoning organs both large, and a large and an active brain, will have a universal talent, and a mind well balanced and well furnished with both facts and principles ; will be a general scholar, and, with a respectable development of the propensities, possess a decidedly superior intellect, and be capable of rising to eminence, will not only possess talents of a very high order, but also be able to use them to the best advantage, and both devise and execute projects, and succeed in whatever he undertakes, even when most of those around him fail.

One with an even head, in which all the parts are respectably developed, will have few prominent traits of character, and few excesses or deficiencies ; will do a fair business, take his character from surrounding circumstances, and pass quietly through life ; but, if the brain is large and very active, and external circumstances are favourable, he will be a universal genius—great in every thing, and without any weak points of character, and capable of swaying a general and a commanding influence.

One with an uneven and peculiar head will possess a *sui generis* character, will be notorious for his peculiarities of talents and disposition ; for his excesses and deficiencies ; his strong and weak points ; will often present opposite phases of character ; cut a bold and commanding figure wherever he moves ; and often effect something important.

The combined action of the several organs has, also, a very important influence upon the character and the mental manifestations, particularly in directing them. Self-esteem large, for example, combined with still larger moral and reasoning organs, and with smaller propensities, imparts a dignity, manliness, nobleness, elevation, and high-mindedness, which scorn every thing mean, low, and degrading, than which no trait of character is more useful or commendable ; while the same degree of self-e., joined with weaker moral and reasoning faculties, and stronger selfish propensities, makes its possessor proud, conceited, haughty, domineering and forward. The same principle applies to amat., combat., destruct., secret., firm., approbat., &c. ; and, in determining character, is as important, at least, as any other.

The larger organs control and direct the smaller ones, and also give the stamp and direction to the whole character, while the smaller organs, in proportion to their strength, modify the action of the larger. Thus, one having combat. and destruct. large, with large or very large self-e., will employ the former to avenge personal injuries ; promote selfish interests ; domineer over others, &c. ; but, with self-e. only moderate or full, and benev. and conscienc. very large, will seldom resent personal injuries, yet will be very spirited in maintaining the cause of justice, truth, and humanity ; in defending suffering innocence, punishing the aggressor, driving forward moral and philanthropic causes, &c. ; with large acquis., will employ these organs in defending his property, and in prosecuting, with energy, his money-making projects ; with large intellectual organs, in the vigorous pursuit of intellectual acquirements, in spirited debate, or the fearless declaration of opinion ; with moderate self-e. and large adhes. and benev. in the defence of friends, while he himself patiently endures oppression, &c. The combinations of the phrenological faculties are almost innumerable, especially when taken in connexion with the varieties of temperament, education, habit, external circumstances, &c. of different individuals—sufficient, at least, to produce that endless diversity and ever-changing variety which exist in the manifestations of the mind. Hence, here is opened up the most extensive field imaginable for philosophical research—a field embracing the whole range of the mental phenomena, and also every thing pertaining to human nature.

(To be continued.)

MEN AND WOMEN OF OUR TIMES.

THE EMPRESS FREDERICK. She has a high degree of the vital temperament, with a fair degree of the motive and mental. Her large face, and base to the brain, indicate a strong hold on life and great capacity to enjoy life. She is full of spirit, is naturally executive, industrious, and forcible.

If necessary she can make the most of life as she goes along, and is alive to all that is passing around her. She is in sympathy with action. She has great perceptive power, and a practical, available cast of mind, and will attend to details in business. She lives in the now, and makes the best of circumstances. She has not only a good executive brain, but has order, method, and system in doing work or planning it out for others. She is full of life and vivacity, yet is more earnest than witty and brilliant. She knows how to make the most of her knowledge and experience. Her ambition takes a

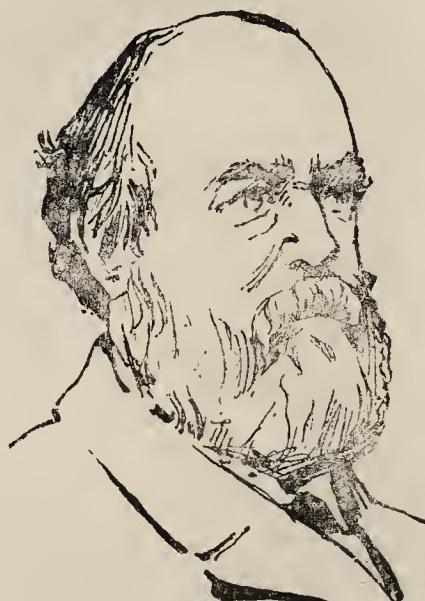


(From a photograph by A. Bassano, 25, Old Bond Street, London.)

social direction, and gives her not a little family pride. She has the elements of economy, and uses her means to good advantage. She possesses any amount of pluck and spirit to go through severe trials and pain. She is one of the kind who do not die to order, or because the physician says she cannot live. She has so much vital power, and such a strong hold on life, that the last act of her life will be to stop acting. The world knows so much about this remarkable lady that it is unnecessary to repeat incidents of her life here.

MR. HENRY GEORGE shows great energy and force of character. His feelings of philanthropy are unbounded.

His sympathies are for mankind at large. He is remarkable for available talent, intuition of mind, and discernment of character, and as a speaker he hits the nail on the head. He at once enlists the sympathies of others, and knows how to carry people with him. He has great command of language. He can organize, arrange, systematize, and discern the wants of society and the spirit of the age. Mr. Henry George is the apostle of the Single Tax. He has been lecturing extensively in "the working man's paradise," Australia, and has now left for America. To the *Pall Mall* interviewer he said of Australians that they are simply Englishmen transplanted, growing up under freer conditions and developing on their own lines. They retain British habits in some things under conditions for which they are not fitted,



yet developing characteristics of their own precisely as the same people have done in America. There is much to remind one of the United States in Australia, much that is suggestive of Americans and Americanisms. They are trying experiments and striking out new lines for themselves; they are enriching the language with new words; they are showing indications of strong inventive faculty; they are essentially democratic, and they have the same sort of good opinion of themselves and their country as that with which Americans are credited. What is called Imperial Federation is, he imagines, quite out of the thoughts of Australians, but the demand for the federation of the colonies is growing. One thing which struck him in Australia was, that the touch between the old country and the new is not nearly so strong or close as he had supposed it to be, or as in the interests of both countries one would wish it to be. He thinks that

such men as Mr. Henniker Heaton and Mr. Stead, who have been working to cheapen the postage rates and telegraphic tolls between Great Britain and Australia, are doing more to strengthen the bonds between the two countries than could the creation of any number of colonial knights. A great nation, he says, is growing up in Australia; or rather, at present, a family of separate nations; and as this growth goes on the possibility of political union with Great Britain will become no closer than with the United States. But if we could once strike down our hostile tariffs and give every one who wants it liberty to work, political differences would become inconsequential, and growing commerce and the inventions to practically lessen differences would weld the nations of the English tongue into one great people. The problems of the London slums; the problems forced on attention by strikes and lock-outs; and the problems of uniting the English-speaking nations into the greatest power for good the world ever saw, are, to his mind, at bottom one and the same. He thinks the New South Wales people hold the key of the situation of Free Trade. For if they were to adopt a thorough Free Trade policy, in sweeping away all their custom duties and raise their revenues by taxes on land values, the growth and prosperity of that colony would compel the others to follow her example.

THE LATE RIGHT HON. V. B. DALLEY possessed a well-balanced mind and a favourable temperament for consistency of action. He was remarkable for his intellectual and moral power. He had great presence of mind and self-government, and was decidedly respectful and humane. He had more than average practical talent, and more than superior power as a speaker, or legislator. He was remarkable in his intuition and perception of truth. He made nice distinctions, and knew how to make the most of circumstances. Few men could tell what they knew better than he could. He possessed great magnetic force, and was prepared to carry others with him. He once said in New South Wales during the centennial celebrations: "If opportunity for a repetition of such action were presented to me again under the like circumstances, I should avail myself of it with a loyal eagerness to serve the best interests of this country (the sending of the contingent to the Soudan). There is not a single person who has visited England since that event who will not give you his assurance that the relations of persons, from the highest to the humblest, towards Australian colonists were changed to your advantage by that national action." It raised her status in the eyes of

the mother country, and a profounder interest has been taken in their prosperity. That, however, will probably be the last, as well as the first contingent sent out. It is now generally



looked upon as being a mistake ; but since then the colonies have undergone some changes and many improvements, and what may have been considered well in the first flush of general enthusiasm has worn off and altered as time has given a soberer judgment.

CARMEN SYLVA, Queen of Roumania, at the time of her wedding in 1869, possessed a tall, splendid figure, a finely-moulded form, large, blue, dreamy eyes, with a world of poetry in their clear depths, a classical mouth, whose graceful curves seem formed but for smiles, rows of pearly teeth, a finely-cut nose, a profusion of light, wavy hair, and exquisitely formed hands. She retains these points of beauty to-day at forty-seven, with the exception that the light, wavy hair has turned to white. According to all accounts she is a fluent writer and charming conversationalist, and believes in

early rising in order to do her literary work before anyone is astir. Her photograph indicates that she has a very fruitful mind, and is quite original. She is naturally witty, and well qualified to entertain company, and has a good command of



language ; she has great penetration of mind, is vigorous, ardent, earnest and thorough. She is subject to rather high states of excitement, has more than ordinary character, and is capable of exerting an extensive influence. She has great taste for art and works of imagination.

ORION.

ANTHROPOLOGY AT THE BRITISH ASSOCIATION.

FINANCIALLY, the Meeting of the British Association at Leeds was not so great a success as usual. Scientifically, however, there were not a few points of interest raised. But we can only direct attention to two or three anthropological features. A considerable breeze was raised by a paper by the

Rev. F. O. Morris in the Anthropological Section which was much talked about at the muster at the Reception Rooms, and indeed for some minutes was the sole topic on that scientific Rialto. Mr. Morris will be remembered by many who, years ago, wanted a book about birds, illustrated in colours, so that we might recognise species and varieties, with just enough and not too much about science in the text, and within the compass of a poor man's pocket. He was down for a paper on the doctrine of Heredity, but, to the disappointment of many who wanted to see the author of popular ornithology, he was absent. His paper smote the believers in heredity hip and thigh, and chaffed them hugely, suggesting that it was a science especially in whose name much nonsense was written. The hornet's nest of indignant scientists was at once raised, and the absence of the writer was much commented upon.

Mr. Bernard Hollander read a paper on Old and New Phrenology, at the close of which

The President said that the subject had been brought forward in a very scientific manner ; but hitherto it had been difficult to dissociate a mass of nonsense from the sense at the core of the question.

Dr. W. Smith said that as a boy he was an ardent phrenologist, but as a student of medicine he lost his ardour. Still, he was bound to admit that in dealing with persons in actual life he was a good deal influenced by physiognomical considerations akin to those of phrenology.

The Rev. Theo. Bennett spoke in the same sense.

Dr. Garson said that the great difficulty in the way of accepting the conclusions of phrenology lay in the fact that the exterior skull varied considerably, but it did not vary in the same way as did the brain in the interior. There might be an absolute prominence on the outside and a depression on the brain surface.

Mr. Widgery said they all formed their own judgments of personal character from appearances, and they were probably right in two cases out of five.

Mrs. Stope said there might be something true in phrenology, although all that had been said about it might not be true. The important discoveries of Ferrier, which had been received as undoubted physiological science, were really foreshadowed in the works of the earlier phrenologists.

Mr. Hollander, in reply, quoted authorities to the effect that the skull was moulded by the brain. Phrenology, however, must be studied ; but it could not be studied by simply buying a bust and being guided by it, as he had known

physicians do, thinking all the time they were phrenologists. (Laughter.)

Ladies have in the past occasionally read papers in the Economic section, but a couple in a Scientific Section like that of Anthropology was quite a novelty. "Is there a break in Mental Evolution?" Lady Welby holds that there is, and that the theory of natural selection does not account for the full development of the human kind. The next lady on the journal—Miss Nina Layard—was fortunately present. The title of her paper was "Reversions"—the word being used not in the will-and-testament sense, but expressing the theories known to Darwinians. Miss Layard holds that natural selection will account for a great many things, but only to a certain point. But she gracefully apologised for refusing to accept the orthodox views with regard to the usual theories of Reversions. What are so-called, in her opinion, are not Reversions to prehuman ancestors, but only signs of arrested development; nor can there be a return to states that never existed. An animated discussion followed. In her reply to the whole, she suggested that according to the ideas of those from whom she differed, a man with down on his skin might be an ancestor of an ape with hair on its hide.

During the meeting of the Association the Anthropometric Laboratory was in action close to the Town Hall. This is an annual function; the experiments are worthless without yearly comparisons. You give your age, occupation, height, weight, colour of eyes and hair, span of outstretched arms, breadth of head, character of nose, &c.; you test the power of your lungs by a blowing apparatus, and all the tests are furthered by devices of Anthropometric accuracy. Then in twelve months' time you come back again, repeat the progress, compare notes, and work out how the world has been wagging with you. This laboratory is the pet lamb of Mr. Francis Galton (whose face has been much missed) and the committee of the Association for which he moved, and it was well patronised at Leeds, sometimes seriously, but as often as not for the fun of the thing. A few papers were indirectly or otherwise connected with this daily resort, such as Dr. Hambleton's on the physical development that is likely to result from following the rules of the London Polytechnic Physical Development Society, or Dr. Wilberforce Smith's paper in the Anthropological Section on the respiratory movements of male and female human beings.

"It is all very well," said one of the audience at Professor Hambleton's lecture, "to say that we ought to add three inches to our chest measurements, but it would be better still

to tell us how it is to be done." Thus challenged, the President of the Physical Development Society laid down a few simple rules which are well worth attention. As to what is to be avoided, the principal items are—badly ventilated and hot rooms, inhaling dust, sipping alcohol, remaining in stooping positions, wearing tight or excessive clothing, keeping late hours, and generally, all those things that tend to reduce the breathing capacity. The gist of the matter, as he showed, is that those who are unavoidably subject for six hours to unfavourable conditions ought to spend more than that time in counteracting the consequences. Easy clothing, wool next the chest, early rising, a daily "tub," exercise in the open air, are golden rules; but the members of the society are also careful, it seems, to throw the shoulders back, the chest forward, and keep the body erect. They take in full breaths and breathe them out again night and morning, and they go in for gymnastics, singing, and swimming. That all this affords a sufficient answer to Dr. Hambleton's catechist must in fairness be assumed from the fact that some of the members of the society are reported to have increased their chest measurements as much as from four to six inches and a half, while others have nearly doubled Hutchinson's table in power of taking and giving out the breath.

MISTAKEN NOTIONS : PHRENOLOGICAL AND SOCIAL.

IT is a Mistaken Notion to suppose that a knowledge of phrenology is to be gained by a merely cursory perusal of a work or two upon the subject, or by the attendance upon a few phrenological lectures, or by the comparison and examination of brains in the dissecting room, or by a desultory study of the subject. The patient and persevering reading of the standard works, a close and critical observation of the heads of living persons, and of skulls and busts of celebrities, are essential to the gaining of accurate information on the science.

There are many persons, however, who, whilst they have neither time nor opportunity to so study the subject, are desirous of availing themselves of some of the benefits which its practical application is capable of affording. To such, a careful examination, by a competent practitioner, will prove to be of immense value.

It is a Mistaken Notion to suppose that we can know too much about phrenology, for it is the only science that truth-

fully and clearly teaches man to know himself, to understand the strength of his various mental powers, and their adaptations.

It is a Mistaken Notion to suppose that the phrenologist draws his deductions from what are commonly and ignorantly spoken of as bumps. His conclusions are formed from a careful examination of the form and development of the skull as the external indication of the form and size of the brain, from the evidences of the quality and activity of the brain, the existing condition of the temperaments, and many other equally important matters, all of which have to be considered.

It is a Mistaken Notion to suppose that the shape of the brain does not correspond with the shape of the skull. That it does so, is a fact fully recognised by all anatomists. There are slight divergences in the thickness of the skull, but such parts are fairly uniform in their position, and can easily be estimated by a skilful phrenologist.

It is a Mistaken Notion to suppose that the skull, with its protuberances and coverings, the related membranes, blood-vessels, sinuses, and the rest, are difficulties insuperable to the phrenologist. His familiarity with these conditions, which may seem to interfere with his exact estimate of the size of the brain, enables him to determine with accuracy the boundaries and extent of all the obstacles. He makes due allowance for them before arriving at his estimate of the size of the brain, or of any particular phrenological organ.

It is a Mistaken Notion to suppose that there is any other science or system (excepting Christianity) that can help mankind towards improvement so much as phrenology. The education of schools and universities is almost exclusively concerned with the training of the intellect, whilst very little attention is paid by some instructors at these institutions to the education of the feelings and emotions.

It is a Mistaken Notion to suppose that a man can reason correctly upon social, political, religious, or intellectual questions unless he has a well-informed mind, and an evenly-balanced brain.

But it is an equally Mistaken Notion to suppose that, because a man has a good head, therefore he is an authority upon any subject of which he may choose to talk. When in a normal condition, man's propensities commonly guide him in such matters as pertain to food and clothing, courage and cautiousness, love and friendship, honour and reverence. But, unfortunately, most men are imperfect in the balance of mental power, and hence they are liable to be biassed on particular subjects, with corresponding false notions, and danger of wrong habits. We

all need teaching and educating aright, or our reasoning may be quite unsound.

It is a Mistaken Notion to suppose that the man who holds his head the highest knows the most. Self-esteem is located on the crown of the head, and, when large, tends to cause the head to be thrown back. Man's reason manifests itself through the anterior or frontal lobe of the brain, which, when large, usually causes the head to incline forward.

It is a Mistaken Notion to suppose that a large head is always better than a small one. It frequently is so when the organic quality is good, and the mind well-trained ; but it is not so when the brain quality is coarse, and the mind uncultivated. Many persons prefer to live in a large house rather than in a small one ; but few, if any, choose the "Workhouse" simply because it is large, rather than a small but comfortable cottage, where they can live in quiet peace, and in unison with their loved ones. A large apple is better than a small one if both are of the same kind and quality ; but if the large one be full of worm holes, and rotten at the core, the small sound one is decidedly the more preferable.

It is another Mistaken Notion to suppose that a man with a small brain is capable of exerting continuous mental or physical influence over the minds of his fellows in any great undertaking. A man with a small brain may, however, be talented, and with his special gifts delight thousands of his fellows, or become great in his own special department of labour. He may succeed in music or painting, or in many artistic and other pursuits. Yet he would have more force, power and versatility, if his brain were larger and of equal quality.

It is a Mistaken Notion to suppose that by education or perseverance a man can succeed as well in one pursuit as another. Such has been taught by scholarly men, but this is an erroneous idea. Where one man can succeed in almost any sphere of labour, ninety-nine cannot. Success or non-success depends upon the size and quality of brain, and the combinations of the faculties.

It is a Mistaken Notion to suppose that a man with a low type of head can suddenly become a good, kind, just, and God-fearing man ; or that another with a high head, fully developed all along the top, could easily commit a crime, either against himself, his fellow-man, or his God, unless his brain became diseased, which would at once remove the case into the category of insanity.

(To be continued.)

CRIMINAL ANTHROPOLOGY.

EXPERIENCE confirms the belief that M. Bertillon's system of measuring parts of the human frame, referred to in our columns some months ago, affords a far more trustworthy means of identifying criminals than photographic portraiture. According to Mr. Spearman's article on "Criminals in France," in *The English Illustrated Magazine*, the French authorities, with an experience in the measurement of nearly one hundred and fifty thousand subjects, have never yet found two cases in which all the measurements were alike. The size and position of marks and scars, when measured with the same extreme accuracy, afford a sort of check on the bodily measurements. It is said that exact duplicates of two or more marks have never been found on two individuals. If, therefore, they get a suspected person whose measurements and marks prove to be absolutely identical with a record, it becomes certain that the record refers to him. So convinced are the French officials of this, that we are told that they now trust entirely to the figures, and never even look at a photograph till they have satisfied themselves of the absolute tallying of the anthropometrical description.

Sir Francis Galton, who is always busily employed in collecting scientific data, is now preparing his views upon the important light that thumb impressions can give to criminal anthropology. At a recent visit paid to his laboratory in South Kensington, we became very much interested in this department of his measurements, and have decided to introduce into the Institute the special feature of mental and physical measurements, that definite data may be registered in the city as well as at South Kensington. We have for many years past measured physical developments in our classes for physical culture, and also cranial developments, but not for a reference registry as is intended at present.

The Fowler Institute.

MESMERIC DANGERS.

By JAMES COATES, PH.D., F.A.S.,
Author of "How to Mesmerise."

IT is advisable in writing on these subjects, so strange and apparently occult in character, to present as plainly as possible the objectionable features, as well as the advantages to be derived therefrom.

We cannot here describe all the abuses which have been tolerated in the name of investigation. It will be sufficient to point out leading causes which have led to the abuse of hypnosis, etc., and the dangers associated with that abuse.

Public entertainments are sources of danger. These have been diverted from the original intentions of those who at first gave public demonstrations. These latter were largely instructive in character, intended in the first instance to show the practical value of mesmerism as an anæsthetic and curative agent ; secondly, to explain and illustrate the curative processes, methods of procedure ; and, lastly, to demonstrate the reality of those psychic conditions in which there were manifestations of what has already been termed the magnetic sense—clairvoyance, thought transference, and what-not.

The wonder is, not that these entertainments became liable to abuse, but that the dangers arising from the abuse have not been greater. The supply followed the demand. The public sought and wanted more in the way of evidence, and eventually cared less for instruction than amusement.

The result was that thoughtful and intelligent men “left the boards” and were succeeded by a cruder type of operators (?) and an inferior class of subjects. These latter, submitting readily to the buffooneries of the platform, gratified the desire of the curious, furnished the exhibitions of pain, which gave pleasure, and the fun (?) so dear to those who take delight in these things.

It was found by experiment that hypnosis was much easier to induce than the mesmeric state. The subjects in the former condition were more pliable, more easily influenced, and more readily imposed upon than in the latter and in higher stages.

The dangers arising were many and complex. Mesmerism became degraded in the eyes of the intelligent and sensible. It was grossly misrepresented to the public. Operators (puffed up by vanity and coin) attempted new and strange feats to gratify their audience, regardless of the effects such attempts would have on the subjects.

The latter were the greatest sufferers. One of the greatest evils, as far as the subjects were concerned, was the undermining of their intellect and will, through the implanting in their minds of alien ideals, and by the undue excitation of the social and animal propensities, already active enough ; and last, though not least, by careless indifference to their welfare by the operator, who restored them (the subjects) to consciousness by rough-and-ready methods.

The whole of these circumstances naturally tended to further unbalance self-control.

There was, too, created in the subjects a craving to enter into the state again. It had on them an effect similar to that which opium, tobacco, wine, and spirits have over those who become victims to their influence. These persons, as soon as a mesmeric entertainment is advertised, wait impatiently for the night of opening, so that they may submit themselves to the psychic intoxicant. How many motives entered into the desire I do not pretend to say, but the fact remains—whatever weakens the vim—the muscularity, judgment, and intellectual self-control—of man, must demoralise. All subjects and patients who are thus repeatedly operated on are thus weakened. Well, this appears to me to be the most vital danger. We are all weak enough, in all conscience, in some department of our character. None of us are so perfect that we can permit our better natures, our real selves, to be so tampered with.

If the dangers are serious which follow the track of the showman, they are by no means as great as those which are now created in the name of medical science. The public exhibitor has to do with rough and uncouth lads — the medical experimenter with the refined, the nervous, the delicate, and the diseased. Of the two performers he is the most to be dreaded—the *clinic bias* is in his blood. There is nothing which he loves so dearly as a fresh experiment. Dr. Charcot, the high priest of modern hypnotisers, admits that crimes may be committed by subjects under suggestion. He is of the opinion, in consequence, that “a strong case is made out for making it illegal for any but properly qualified men to dabble in hypnotism.” Now, I as strongly object to medical men as I do to uneducated music-hall conjurors “dabbling in hypnotism.” There must be no dabbling. The profession view (from a materialist standpoint) a hypnotic subject as they would a body for dissection, a patient for amputation, or as a dog or monkey for vivisection. This is the case on the continent, and it is questionable if we are entirely free from it in this country. In France, in consequence of the mental, moral, and physical deterioration, hypnotising has recently been forbidden by the Minister of War in the French army. The hypnotisers were all medical men attached to the army. More recently we find an order almost identical to the foregoing has been “made the order of the day” in the navy, “forbidding the doctors in the navy to practise hypnotism on their patients.” From what has been advanced it is quite clear the mere possession of a medical diploma does

not "properly qualify" a medical practitioner to be a hypnotist.

All the dangers and evil effects arise principally from lack of thoughtfulness, although some may arise from inherent badness in operators, subjects, or both. A really bad man with evil intentions and the requisite determination can just as readily hypnotise as a good man with the best of intentions.

The fear of the law, the dread of consequences, and the fact that evil sometimes overreaches itself, are all helpful in a measure to restrain evil doing. No one will venture to deny, however, evil is wrought, notwithstanding. If so, why not in hypnotism, where the influence of the operator for good or evil is more powerful, and the susceptibility of the subject is very much greater than in any other walk in life.

The mesmeric state has not escaped its due quota of abuse arising from similar causes. Fortunately, the "double who is wiser and better than we, and who puts thoughts into our heads and words into our mouths;" the determining "energy" of Professor Stokes, which, underlying the phenomena and conscious of life, stands guard to protect our life interests ; the *lucidity* of the subject, and almost superhuman intuition of reading thoughts and grasping intentions possessed by him are wakeful sentinels in the watch-towers of the soul, and guard its inner chambers against all attacks, not concurrently accepted by the soul itself.

It is a poor philosophy to reject the use of that which is good in itself, simply because it may be liable to abuse.

To recognise the evil, is half the cure of the evil. It is not wise to reject the undoubted benefits which may be obtained by the intelligent and rightful employment of hypnotism or mesmerism, because public exhibitors have been ignorant and foolish, or medical men have rushed from one extreme of negation to that of rash and senseless admiration. The whole subject is surrounded with difficulties. But, is it not better we should know them and not shut our eyes to them ? far less do as some do, mistake that which is essentially good for evil, simply because they will not nor cannot understand it.

To avoid the dangers and remedy the difficulties (in some measure) I would advocate the following for general guidance :

1st. The information we have on the subject should be given in the clearest and fullest manner, and the most useful books on the subject should be carefully studied, and practical instructions should be received before anyone attempts to practise.

2nd. That all practice should be confined within well-defined limits.

3rd. That none but thoroughly qualified persons in character, health, and ability be allowed to practise as operators.

4th. That curative operations should be esteemed as the most essential, and all efforts should be directed solely with that view.

5th. All other experiments with the object of ascertaining possible new physiological and psychic facts should be proceeded with—under direction—with due caution, and terminated with the greatest care. Before subjects are left they should be fully de-hypnotised—and all undesirable impressions most fully removed.

6th. That all operations should be safeguarded—alike in the interest of the operators and patients—by proper witness and suitable surroundings. No treatment for disease nor experimenting be permitted without the presence of persons most interested in the welfare of the patient.

7th. That all mere experimenting as such should be rigorously objected to.

8th. All else being equal, men should "treat" men, and women women, and members of the same family, one another.

9th. That where necessary to engage an operator, cast about in your own circle for such a one, as you are more likely to know more about his or her real character than of a person outside of it.

10th. All respectable and trustworthy operators will prefer to do their work under conditions mentioned, and as far as possible under medical supervision, should there be a family physician respected and trusted by those concerned, and the patient.

11th. Let the same judgment and common sense which is brought to bear in all other departments of social life and usage be brought to bear in the selection of an operator. How do you select your pastor, physician, law agent, friends, and companions? As you have selected these, choose the other.

12th. If however, you mistrust your own judgment, seek counsel from those whom you know to be trustworthy, then let the operator of their choice and your own be engaged. Treat with courtesy and respect, second his or her efforts by attention, promptitude, and confidence.

13th. Judge the tree by the fruit. If the hypnotist is doing good, if his presence and operations appear beneficial to the patient, if on these grounds the patient desires his attendance, let him proceed, if you think otherwise, dismiss him. Any genuine operator who feels he is not doing good will himself withdraw from the case. There will be no hanging on and mere visiting to extract fees.

14th. Sleep is only necessary in a limited number of cases ; sleep should not be resorted to unnecessarily.

15th. When sleep is necessary it should be just that kind required by the nature and character of the derangement. In surgical and dental operations the processes should be local, directed more particularly to the involuntary muscles, and the brain centres controlling them—putting these alone to sleep, leaving the rest of the body under the control of the involuntary muscles as in natural sleep.

16th. It should be remembered greater good can be derived from mesmerism and hypnotism than evil from their perversion. All persons can be hypnotised except lunatics, as we have elsewhere stated. The evil and the good should be fully known.

In conclusion, let me observe, “thoughts are things.” Thought alone is real and permanent. In a certain sense, “he that believeth is saved.” To sincerely believe in the good and true, to admire that which is lovely and pure, is but another way of making our lives conform to these things ; contrawise, otherwise. So in hypnotism. “Beliefs,” conceptions, and ideas can be so impressed and reimpressed as to become earnest and intense thoughts—thoughts which modify and “convert” the stammerer into a plain speaker, the opium victim into a creature self-possessed and self-controlled, the dipsomaniac from the “possessed” into being “clothed in his right mind.” Under such circumstances, notwithstanding the possible dangers arising from the injudicious and indiscriminate use (?) of hypnosis, can we neglect to utilise such powerful agencies to strengthen the will and conscience of some of our fellows, and in the very exercise strengthen our own ? I think not. If the background of our picture is shaded deeply with the gloomy colourings of human depravity, selfishness, and sin, is not the foreground made all the more beautiful and striking through the light thrown upon the centre figures—groups of grateful saved ones rescued from the unseen horrors of that darkening gloom—restored to health and happiness, to peace of mind and soundness, by the wisdom and direction of a healthy operator ?

AT the opening meeting of the Autumn session of the Fowler Institute, Wm. Brown Esq., of Wellingborough, read a very interesting paper on “The Nose ; its structure, use, abuse,” &c. The lecture was illustrated by diagrams and drawings on the blackboard, and was instructively and pleasantly delivered. The fact was impressed upon the audience that even the nose can be improved, and that when properly cared for, it was valuable to life and health.

HYPNOTISM.

THE Edinburgh *Evening News*, of August 4th, contains the following :—

THE BRITISH ASSOCIATION AND HYPNOTISM.

Nicholas Morgan, 136, Gilmore Place, writes :—The paper read by Dr. Kerr at the B.M.A. on hypnotism calls for a few remarks. He said :—"The greatest success of hypnotism was claimed in nervous diseases, which, however, were the very ailments he had seen in the long run intensified and confirmed thereby." This is quite at variance with my experience during the three-and-thirty years in which I have applied mesmerism or hypnotism as a therapeutic agent. I have benefited large numbers of nervous patients with mesmerism, but never knew one whose disease had been "intensified and confirmed thereby," or made worse in the slightest degree by my operations ; and I am persuaded that the cases referred to by Dr. Kerr had not been injured by hypnotism when properly applied, but by mismanagement—the result of ignorance. I am at one with Dr. Kerr, that hypnotism should be in the hands of medical practitioners ; and why is it not ? That is the question. It is not exclusively in their hands because they ignored it ; and would have stamped it out of existence half a century ago if they could ; and even now, when they can no longer resist the force of truth, they have not a kindly word for those who recognised it at first as a valuable agent, and under whose fostering care it has developed to giant dimensions. Still, better late than never. Let them take hypnotism to themselves ; but let them qualify for the practice of it by the requisite knowledge. I regret to say that, according to my experience, medical practitioners in general have not sufficient knowledge of the science and art of hypnotism to apply it successfully in the cure of disease. In fact, very few of them possess even a rudimentary knowledge of the subject, and Dr. Kerr has not, in the part of his paper noted in the *Evening News*, given any evidence that he has more than a smattering of information of the subject. Dr. Kerr says truly, that the dangers of hypnotism are very great, but when he goes on to state that each seance might bring the hypnotee more under the control of the hypnotist, ending often in the complete submission of the former to the will of the latter, he speaks more from fancy than fact. I have hypnotised or mesmerised some patients many hundreds of times, and one about 2,500 times, and in none of these cases had I more control over the will at the last operation than at

the first, or may be, after the second or third time. An expert and circumspect hypnotist would safeguard the patient from taking any harm by his operations. Permit me further to state that there is no occasion to induce a mesmeric state in order to affect a cure, for passes made by the hand without contact by an experienced operator, are sufficient to overcome some of the more painful and serious ailments.

THE METAPHYSICS OF PHRENOLOGY.

No. I.

IT is gratifying to note that attention is being directed to the "metaphysics of phrenology," for nowhere save in the metaphysics of any subject is it possible to be *en rapport* with the Great Cause World.

Truth does not inhere on the physical plane; unless there is discernment to penetrate beyond the exoteric veil of illusion inseparable from the material plane, it is not possible to come into satisfying possession of reality itself.

There is no science, whatever its name or nature, but that begins on the physical plane. The alphabet and primary truths of its base are there; but when the alphabet is mastered, and the spelling, tentative, or experimental stages of the same are fully traversed, then the enquirer is confronted with what is within, and he is naturally impelled to knock at the portals of the Great Cause World, and learn from thence the metaphysics—that is, what is within the outer form or shell of the physics—of his alluring quest.

Assuming that science is "systematised knowledge," there is nothing whatever of any value to man but what comes fully and fairly under that head—religion not excepted. Nor is religion exempt from the same laws and conditions of limitation to which all other sciences are subject, seeing that the object of it—man—lives, moves, and has his being on the physical plane, so must be met and dealt with from thence or left altogether. The alphabet and primary instructions relative to Christianity are therefore shown on the physical plane in "God manifested in the flesh." Those whom Christianity undertakes to deal with have to be taken as they are, and where they are, and dealt with accordingly; so, being helplessly exoteric at the outset, only physical and exoteric things are adapted to their requirements while in the infantile stage, and the primary classes of the subject. But truth does not inhere there. The reality of Christ and His great salvation cannot be realised exoterically, or on the plane of sense

and physics ; and yet the way of the child therein is along the exoteric track, to be left later on, however, when the student has opened esoterically to the reality of Christ in him the hope of glory ; and then his heart-felt exclamation will be, as was the case with Paul : "Henceforth acknowledge we no man according to the flesh ; yea, though we have acknowledged Christ according to the flesh, yet now henceforth acknowledge we Him so no more." Then, having passed through the infant class where the physics of the great subject constituted its alphabet and primaries, and having touched the Great Cause World, the interior of his quest, his exclamation will be again with Paul : "When I was a child, I spake as a child, I thought as a child, I reasoned as a child ; but having become a man I have put away childish things." Thus we say that the Divine science is no exception to the rule of all sciences ; they all begin with physics, and the alphabet and primaries of the subject are there to be studied exoterically ; but that diligently attended to, the higher branches of the subject imperatively claim the student's best attention before he can be anything more than a mere smatterer. Nothing but the metaphysics of any subject can make the student its master, or put him in joyful and confident possession of its highest truths.

It is hard to impress the importance of the metaphysics of any subject upon the *noi polloi* for a sufficient reason. The reason is in keeping with the physical plane, as might reasonably be expected, and it is, there is no money in the pursuit of metaphysics. What is not concerned in physics, and has no very apparent connection with this work-a-day world, possesses no power of attracting people as a rule ; quite impromptu they ejaculate the query—What is the good of it ? and turn away with undisguised contempt in consequence. Notwithstanding all this, it is within the range of pure metaphysics that "all truth" inheres. "When He—the Spirit of truth—is come, He shall lead you into ALL TRUTH." Truth inheres nowhere besides ; while the physics of any subject form its Alpha and its Omega, the student is trying to satisfy himself with mere appearances and the superficialities of his subject ; and although he may not apprehend or appreciate the thought, the very truth is still evading his research, for it lives, moves, and has its being only in the within of the Great Cause World, the yet unexplored and unmapped region of metaphysics.

The two planes of physics and metaphysics have riches in character and keeping each with itself. The illusory plane of physics where nothing really, finally, or absolutely true

inheres, elevates physical wealth to the throne, and does it homage in every possible way. But what it pursues in such way with unwearying assiduity is not "the true riches ;" they are only on the spiritual, or metaphysical plane ; and as soon as a person feels the attractive force of the higher and true riches, the lower grade of the same loses its hold upon him. There is never any reason to doubt, nor anything suggestive of difficulty, as to the plane that really fills the nature of anyone ; that is in all cases set at rest by what is most sought after and prized as riches. Where the best energies are consumed in work planned to increase worldly riches, there is the demonstrating fact that speaks volumes, declaring infallibly that its votary is exoteric ; not alive and awake, that is, to the greater realities of the Cause World, the realm of metaphysics, where pure and eternal truth inheres.

The higher anyone is ambitious to climb, the fewer there will be to follow him, and the more there will be to upbraid him for foolhardiness in confronting the increasing difficulties and dangers of the path. Almost as certainly as anyone elects to choose this very unfrequented and unpopular track, the finger of scorn is pointed at him, and a jeering hue and cry is hurled at him to intimidate him. If he still presses on undaunted, the difficulties of the way intensify, for the jeers and sneers at last take the form of persecution, and he is left to himself, while pecuniary support is withdrawn from him. Not many are strong enough to battle against so much ; so rather than be left by the many, and be reduced to the bare necessities of life, they weakly drop their quest, illustrating the words of the Great Master : "When persecution arises because of the word, by and by they are offended." This is true when applied to the metaphysics of any subject. So long as people content themselves with handling it neatly and deftly on the physical plane, so as to be in touch with the *noi polloi*, loud approval and a continual stream of wealth will be their reward ; but no sooner does anyone determine to pursue his subject into metaphysics than he is left ; his friends and supporters fall away from him one by one ; his means of winning money from the rest of his fellows is weakened ; and, unless he is more than ordinarily strong and resolute, he bends meekly to what is commonly called "the inevitable." No wonder then that few are found willing or worthy to follow the many subjects that concern man into the esoteric sphere where the eye-opening truth itself therein may be learnt and appreciated. Undoubtedly, as Mr. A. T. Story declares in the May number of the PHRENOLOGICAL MAGAZINE, pp. 207, "There is also a wide branch, a prolific field, for those who like to take up

the subject of the metaphysics of the question, and mark *how* the mind acts through these organs." It is absolutely true that "there is nothing covered that shall not be revealed, or hidden that shall not be made known." When "anyone will take it (phrenology) up and pursue it thoroughly in a metaphysical spirit, he will found a system of philosophy which will supersede all those philosophies which hitherto have tried to hold the field but failed."

THEODORE WRIGHT.

Notes and News of the Month.

MR. HOLLANDER is reading character from Photographs in *Romance*. You buy four copies, cut out the "coupons," and for them get a delineation.

MR. GLADSTONE has accepted from the publishers a copy of Mr. A. T. Story's "Book of Vagrom Men and Vagrant Thoughts," for the Hawarden Village Library.

MR. COATES requests that all phrenologists desirous of being registered in his 1891 Annual, will send in their names at once to Greta Bank, Crosshill, Glasgow.

THE humanity of "Carmen Sylva"—the Queen of Roumania—to the wounded during the Russo-Turkish War of 1877-8 earned her yet another proud title, that of "Muma Ranitolor"—the "Mother of the Wounded."

THE fourth edition of the Board School Gymnastics is now ready. There has been some delay in getting it out in consequence of the bookbinders being busy with their autumn orders. No school teacher, student, or mother of a family should be without this useful gymnastic instructor.

DR. RICHARDSON'S conclusion is that water is a great sustaining power in abnormal fasts. After the feats which have been performed of late years, it may fairly be accepted as proved, he says, that "a forty or a forty-two days' fast is well within the order of natural phenomena."

MR. TIMSON, of Leicester, writes : "Re the letter of Mr. Coates, in the issue of August, I heartily agree with his suggestions, and will gladly offer any service in my capacity for the furtherance of such. I should also like to see a measure introduced, as a branch of the Union, in the form of a system or method of reading upon phrenology, physiology, and kindred subjects."

THE *Star* of Sept. 6th contains the following : "One of the most striking books of the season is a real 'shocker,' entitled 'The Christ

in London,' which has created not a little talk in certain quarters. The author, T. St. Martin, received a very complimentary letter from Cardinal Manning, amongst others, asking him to call on him at the Archbishop's House, Westminster. The work is said to have been written during the dockers' strike of last autumn, most of the meetings of which he attended as a journalist, and many of the more intimate scenes of which he witnessed."

THERE is nothing new under the sun. Even the penny-in-the-slot machine is by no means a modern invention. In the old Egyptian temples devices of this kind were employed for automatically dispensing the purifying water. A coin of five drachmæ dropped into a slot in a vase set a simple piece of mechanism like a well-sweep in motion ; a valve was opened for an instant, and a portion of the water permitted to escape. This apparatus was described by Heron of Alexandria, who lived two hundred years before the Christian era.

DR. RICHARDSON gives an account of a case of fasting for 55 days which came under his observation ; but the sufferer in the end succumbed. During the whole of the period the patient had nothing but water. He had no pecuniary object to serve ; nor does his abstinence appear to have been altogether the result of obstinacy. He seems to have sunk into a morbid physical condition, of which the chief characteristic was a repugnance to food. He had, oddly enough, contracted the idea that the digestive process was impossible, as he had no gastric juice, and that all he could take was water. The brain, when afterwards dissected, "yielded no trace of acute organic mischief."

THEATRE FOR DEAF AND DUMB.—Paris contains numerous theatres, but a unique addition is about to be made to the many places of histrionic entertainment in the city in the shape of a Temple of Thespis for the deaf and dumb. The institution (according to a correspondent of the *Daily Telegraph*) is due to the initiative of M. Victor de L'Epée, a descendant of the famous and philanthropic Abbé who taught deaf mutes to hold converse by signs. It is to be called the Théâtre de la Plume et Pensée, and dialogue will be carried on by means of the symbols of speech used by the deaf and dumb. The opening play, *Love and Death*, is the work of a young deaf mute, M. Varenne, some of whose companions in physical affliction will appear in the cast of the piece.

THE following extracts from a letter received by Mr. Story from a minister in New South Wales will be of interest, and may be regarded as something of a set-off against the stupid and ignorant dogmatism of the pulpiteer whom Mr. Dutton so ably handled in last month's PHRENOLOGICAL MAGAZINE : "Your last lesson reached me safely on July 16th . . . It will be a source of pleasure to you, I am sure, to know that they have proved a means of great benefit to me. Fourteen years ago, I was induced to read O. S. and L. N. Fowler's

'Self-Instructor.' During the ten years next following, I read several books on the question. Four years ago, I became a subscriber to the PHRENOLOGICAL MAGAZINE, and remain such. . . . Two years ago, I even ventured to deliver short addresses to my church on week evenings, and also to make what use I could of the subject in my Sunday utterances. But, feeling the necessity for a better grip and clearer view of the science, such as I presumed would be derived in a considerable degree from a course of study, I was prompted to make the application I did to you last year. And I am right glad at the result. Should I meet with others desirous of receiving a similar course of lessons, I shall take great pleasure in recommending them to your attention."

THE following appeared in the *Star* of Sept. 9th:—

Sir,—Evidently the Rev. W. Dawson, when he advised the readers of the *Young Man* not to fuddle themselves with phrenology, overlooked the spiritual injunction, "Be faithful in all things." Had the reverend gentleman taken the trouble to acquaint himself with the teachings of phrenology, as expounded by Gall, Spurzheim, and Combe, I am sure he would never have allowed his imagination to play such sad havoc with his reason. He asks, "What good can it do you to be told that you are weak in concentration?" The good will be in proportion to the individual effort made to remedy the evil. But phrenology goes furthur, it points out the fact that, in proportion as the brain is the slave of novelty, so in proportion will the individual be incapable of understanding the necessity of closely applying himself to one thing until accomplished. A quiescent condition of the brain is essential to thorough thinking, and this condition cannot exist if the individual mentally flies from novelty to novelty much as the butterfly does from flower to flower, hence the utility of the phrenologist in such a case as this will be in pointing out to his client whether the defect is due to small continuity over mental exertion or an imperfect physique, and, of course, how to remedy or modify the failing. Our reverend friend's knowledge of mental science is a bit rusty, and I am afraid his knowledge of mankind is not by any means profound.—Yours, &c., P. K. ZYTO.

QUICKER THAN LIGHTNING.

The Action of the Human Body outstrips Everything.

"As quick as lightning" is a phrase colloquially used to express the maximum of rapidity. But, according to a contemporary, electricity itself is outstripped by that old-fashioned machine, the human body, by which it appears powers can, so to speak, be generated in the brain, transmitted through the nerves, and developed in the muscles in an infinitesimal fraction of a second. It is stated that a pianist, in playing a presto of Mendelssohn, played 5,595 notes in four minutes and three seconds. The striking of each of these, it has been estimated, involved two movements of the finger, and

possibly more. Again, the movement of the wrists, elbows, and arms can scarcely be less than one movement for each note. As 24 notes were played each second, and each involves three movements, we would have 72 voluntary movements per second. Again, the place, the force, the time, and the duration of each of these movements were controlled. All these motor reactions were conditioned upon a knowledge of the position of each finger of each hand before it was moved, while moving it, as well as of the auditory effect to force and pitch, all of which involves at least equally rapid sensory transmissions. If we add to this the work of the memory in placing the notes in their proper position, as well as the fact that the performer at the same time participates in the emotions the selection describes, and feels the strength and weaknesses of the performance, we arrive at a truly bewildering network of impulses, coursing along at inconceivably rapid rates. Such estimates show, too, that we are capable of doing many things at once. The mind is not a unit, but is composed of higher and lower centres, the available fund of attention being distributed among them.

What Phrenologists are Doing.

[We shall be pleased to receive for insertion under this heading, reports of lectures, meetings, or engagements of phrenologists. In sending notices correspondents will oblige by enclosing their communications in an envelope and addressing them to the office of publication of the PHRENOLOGICAL MAGAZINE. Newspaper cuttings pasted on post-cards are an infringement of postal rules and subject to a fine.]

At the British Association Meetings, held in Leeds, Mr. Hollander read a paper on the Old and New Phrenology, which was briefly and favourably discussed by Dr. Smith and other gentlemen.

FOLKESTONE.—On Monday, August 11th, a lecture was delivered in the Congregational Hall, Folkestone, by Dr. Richards Gray, F.S.Sc., the Rev. W. Hall, M.A., presiding. There was a large audience, who heartily testified to the interest, depth, and tenor of the whole programme. The subject was "Sparks from an Anvil." Many ladies and gentlemen came forward to be examined. In each case, those who knew them personally (all were entire strangers to the lecturer), testified to the correctness of the remarks. Unanimous thanks were tendered for the treat afforded. On Monday, Sept. 1st, the second lecture was delivered in the same hall, when J. Cooper, Esq., took the chair. The subject—"Education: its Helps and Hindrances," was well received by the company. On this occasion also there were examinations, each said to be correct. On Monday, Sept. 8th, the third lecture was given, Rev. J. J. Dolman chairman. "Woman: her Capacity and Influence," was the theme, and a most interesting and instructive discourse it proved. Many were the expressions of thanks for the views and teachings presented.

Correspondence.

GALL'S SYSTEM AND PHRENOLOGY.

To the Editor of the PHRENOLOGICAL MAGAZINE.

SIR,—As you have been kind enough to insert Mr. Nicholas Morgan's lengthy criticism on my paper bearing the above title, may I request you to insert also this reply to the severe accusations which that gentleman brings against me.

His first charge is that I put "phrenology at the base of disgrace," and he seems to have received that impression from my statement that, whereas Dr. Gall's system is at least circumstantially demonstrated at the present day, Dr. Spurzheim's completion of it to the doctrine of the mind (or phrenology) by the introduction of speculative reasoning, was not only premature but prevented its acceptance. Mr. Morgan although dissatisfied with this view, in another part of the MAGAZINE makes a much stronger assertion than mine to the effect that "the psychology of phrenology has yet to be written." Now, I have always thought, that phrenology is only another name for psychology, and that it is the most scientific of all systems of psychology, being based on physiological research.

Mr. Morgan's second charge is, that I wished to tarnish the lustre of Spurzheim, having made no mention of his share in Gall's work. I do not know whether my critic has read Dr. Fossati's biography of Gall; if he has, he must be acquainted with the fact that Dr. Gall would not hear of Dr. Spurzheim, after their separation, and left his books uncut or partially cut. I have never questioned Dr. Spurzheim's genius or the gratitude which we owe to him for his labours in England, but I question very much Mr. Morgan's impartiality in quoting Spurzheim on his own merits. He continues: "Besides, Spurzheim introduced the new method of dissecting the brain into this country, and gave practical demonstrations in London, Edinburgh, and other cities. But not a word respecting this part of his laborious life is noted by Hollander." Besides, let me reply, Dr. Spurzheim soon abandoned the new method of dissection on the ground that Gall's anatomical labours were of no great importance.

Lastly, Mr. Morgan does not see that an injustice has been done to Gall in not translating his work and continuing his method of investigation, but he unconsciously demonstrates the accuracy of this view by arguing with me on the localisation of the organ of imitation. Had Dr. Spurzheim—instead of hurrying himself with the completion of the system—collected facts regarding the location of each faculty, he might have succeeded in establishing some of them, as Dr. Bouilland has done in respect to the organ of language, and Mr. Morgan would have no cause, half-a-century later, to discuss the seat of such a recognised faculty as that of imitation. According to his statement, imitation is "in the inferior fold of the first frontal convolution, and not in the second convolution" as I described. What is Mr. Morgan's evidence for this localisation?

I said the manifestation of this faculty is connected with the posterior part of the second frontal convolution on the ground that "imitation" was originally the organ of "mimicry," and that the instruments of a mimic are his facial muscles; and that Prof. Exner locates the motor-centres for these muscles in the part described, a localisation which Prof. Ferrier confirms.

Now, what is the moral of the discussion? In my opinion, it is this: That the sooner phrenologists combine to settle among themselves what is fact and what is theory, the sooner will they earn the respect of scientists. It may have been a want of tact on my part—and I apologise to those who are concerned—to introduce such a questionable topic in the MAGAZINE; the Association's meeting-room would have been a better place, but it was not my intention to speak derogatory of phrenology. I think that it is the truest doctrine of the mind, but I do not close my eyes to the fact that outside the phrenological circle few men would share that opinion with me.

Thanking you for your courtesy, and hoping that Mr. Morgan will take no offence at my remarks,

37, Gloucester Place, I am, Sir,
Portman Square, London, W. Obediently yours,
1st September, 1890. BERNARD HOLLANDER.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

THE following letter has been received with reference to the photographic sketches appearing in the Magazine:—"Dear Sir,—I think the delineation is very correct. I might add that this is the third time I have been dealt with in your Magazine, more out of curiosity than any other reason; the three photos were all taken at different times, and in different positions, but I am glad to say all three characters agree to a nicety on the main points. I thought perhaps you would like to hear this, as it should convince one that the science of phrenology is rather more than a game of fortune-telling.—I am, dear Sir, yours respectfully, ROMEO."

M. R. (Aberdeen).—Has a distinct and positive character; he is exceedingly restless and uneasy, wants to be doing continually; is very ambitious, more especially about that which will command respect and influence than to simply fill an office. He will never be satisfied

with his attempts or labours. He is philanthropic, sympathetic, and capable of being deeply interested in mankind. He is reverential as regards the laws that are, and possesses a deep feeling of respect wherever it is deserved. He is not so loving and social as he is kind and sympathetic to mankind. His prayers are not for the few, but for the many. He is remarkable for the availability of his intellect, for his capacity to acquire knowledge ; has a scientific turn of mind, and is very fond of figures and experiments. He is all alive to what is going on around him, and to the histories of the times. As a speaker he is forcible and direct. He would enjoy travelling very much ; the study of geography and astronomy gives him great satisfaction. He is intuitive and sagacious, rather than abstract and philosophical. He would have excelled as a physician or discerner of character in the selection of men for their various places. He is not so witty and imaginative as he is scientific, practical, intuitive, and sympathetic. He has naturally a strong constitution, and he needs it because he does not save himself any too much when at work. He has very strong feelings of likes and dislikes. He does not mind little injuries, bruises, or common impediments in his way. His determination is such that he is not easily checked in his progress or in the accomplishment of his ends. His superior gifts are scientific rather than literary, and connected with that which brings him in contact with men so as to manage them according to their capacities. He looks upon money as a means to accomplish his ends, but would have sacrificed money if by so doing he could succeed in his efforts.

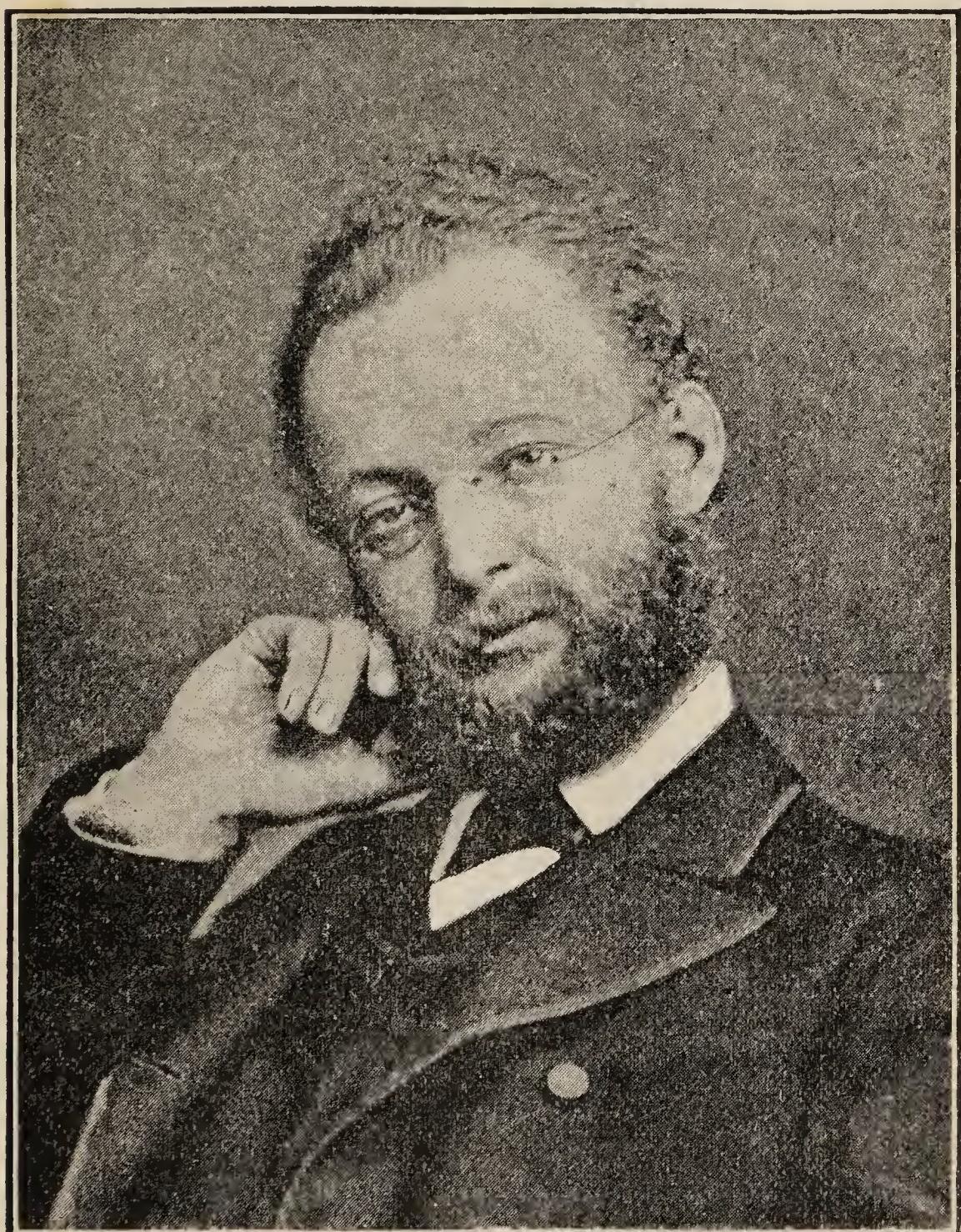
HARRY (Bristol).—You have a predominance of the mental temperament, are capable of a high degree of culture. If circumstances were favourable you could become a good speaker or writer, you have a literary cast of mind, have rather strong imagination, and a great love for style and perfection ; you will not easily suit yourself to an ordinary sphere of life, like that of a tradesman, farmer, or mechanic, but you could become an artist, designer, copyist, etc. With favourable circumstances you will naturally gravitate into an intellectual sphere of life. Do not stop short of doing all you can to improve and cultivate your mind, for you have gifts sufficient to sustain you in a profession, as a speaker, but more especially as a writer. You will find it difficult to keep your imagination in its place, for you are inclined to take extravagant views of subjects, and your mind is liable to wander. You are disposed to invent, and encourage new thoughts, schemes, and projects ; but as soon as you can settle your mind definitely to one sphere of life do so, and do the best you can to perfect yourself in this direction. Memory of details is not specially good, you are more given to thinking than to observing. You enjoy travelling very much, you remember places easily, you also remember thoughts, subjects, and what you read better than the common occurrences of life. You will find the practice of reading out loud to yourself or to company to be a source of great improvement to you, for it will help you to get command of yourself. You have a full degree of energy and force, sometimes are

too spirited and throw too much executiveness into your work. Husband your resources, live uniformly and quietly, and avoid great extremes and excesses of all kinds. You prize property, and could make use of a large amount if you had it, for you cannot easily satisfy your craving mind. You are naturally bland and easy in your manner, and will not find it difficult to render yourself popular. You can make many friends, and draw people to you, for you have magnetic power. Do not stop short of making the best use of all your gifts, let your steps be upward and onward, for you have sufficient grasp of mind to allow of considerable culture. Study oratory, cultivate the artistic, do your work in the best manner possible, be judicious in the use of your property, and do not get into the habit of buying things simply to gratify your fancy and taste, but consult your funds first. In selecting a companion consult your judgment as well as your taste, for you are too much attracted by beauty and personal appearance. You have not too much decision and stability, still you are not defective in conscientiousness, and this will help to give fixedness of principle and general stability of mind.

ANNIE is organised for susceptibility, is mentally ambitious and all alive to what is going on around her ; has rather too much nervous power, and not enough vital. If she is anxious to prolong her life, she had better manage to live outdoors, have outdoor recreation, taking frequent walks, though not long ones, should encourage full breathing and frequent bathing, and get as much in love with herself as she can. She must learn to be quiet and take things easily, and be content mainly to mind her own business. She is ardent, earnest, and well-nigh enthusiastic in whatever she takes hold of to do. She is neat, methodical, systematic, and plans her work before she commences operations. She has good conversational talent, is well qualified to entertain company and make herself agreeable. She is open-minded, and ambitious to excel and do her best. Her sympathies are rather too strong ; she gives to others more than she takes, hence she need not feel that she is in debt to anyone. If she had more base to the brain it would be an advantage to her, for it would help to give a strong hold on life ; hence she need not be afraid of being too worldly or too selfish. She has a good sense of sound, is distinct in her conversational powers, and has a very fair control over her voice. She should avoid all kinds of extremes, take plenty of rest, and eat as much of the right kind of food as she can digest. She would make a most devoted companion and a very loving mother. Probably her own life would be prolonged by marriage and parentage; but there is a danger of this being at the expense of the next generation. If she were to marry without being a parent her life would be prolonged and made happy ; but if she were to have offspring, she would live still longer, but her offspring would have her delicacy of constitution. It is fortunate for her that she has great will-power and presence of mind to give self-control and regulating power over her feelings, for she is wonderfully ardent, very emotional and exceedingly sympathetic with kindred spirits.

THE
Phrenological Magazine.

NOVEMBER, 1890.



DR. T. R. ALLINSON.

THIS gentleman has a predominance of the mental temperament, hence is more interested in that which requires him to think and study than in physical labours and pleasures. He has scarcely bodily power

and vitality enough to sustain the brain in its great action. His phrenological developments indicate a strong character in the following directions. He possesses more than an average amount of decision, will-power, perseverance, and desire to carry through what he takes hold of to do.

He should be known for his integrity, sense of justice, and love of truth : he cannot sacrifice himself to what he knows is not true. He is also known for rather excessive hope and enterprise, and his plans are almost too large for any one man to put into full execution ; he is living for another life as much as for this. He is known for manliness, pride, independence, and even dignity under some circumstances.

Sympathy is a strong feature of character : he is interested in mankind generally without much regard to race or colour. He is not a sectarian, and his creed is short. He has a great amount of spirit to overcome, has both moral and physical courage, and does not easily give up when the odds are against him.

Combativeness is developed in a mental and moral, rather than in a physical direction ; but he has the spirit of opposition to the core. Destructiveness is not so fully developed as combativeness ; in his general contact with others he is full tender enough in his sympathies. He has the power to apply himself continuously to a subject, and to finish what he begins.

He has no special local attachments, and prefers to study or read rather than to go into general society. He has, as a whole, more sympathy than sociability.

He has the faculty to prize property, and is anxious to possess it in one form or in another ; whatever he values, whether apparatus, books, money, land, or anything else, he takes care of it. As a general rule, he keeps his own affairs snugly to himself, but is prepared to give his opinions frankly.

He has more prudence and forethought than fear or timidity. Veneration is large enough to make him respectful, but he is not an idolator. The reasoning faculties are stronger than spirituality ; hence he prefers to have a good foundation for his faith.

He is remarkable for his intuitions ; he knows things at once ; his impressions are formed at first sight ; he can scarcely improve a subject by going over it the second time, so far as thoughts are concerned. He discerns character and disease, as well as truth, from the first effort of his mind on the subject. He is a great student of nature, and a great lover of simple truths ; as a writer or speaker he comes directly upon the subject, without many preliminaries. He is a severe critic ; is sharp in his powers to see the difference between

one subject and another ; he makes nice distinctions between things, and takes circumstances into account in making up his mind.

The moral brain as a whole is large and gives tone to the mind ; he is living for a principle, and not so much to gratify himself in his physical relations to this world, but with a permanent desire to improve and get higher. He has more of a literary than mathematical turn of mind ; he may invent and make improvements, but that comes from his intuitions and correct perceptions of simple truth. He is not particularly mechanical or given to a variety of contrivance ; he goes straight at a thing, and does not see many ways to do the same thing, but usually carries out his idea from the first perception of it. He has not naturally large order ; he has had to learn to be orderly and neat, and has had to drill himself in this respect. Originally he was careless and allowed others to take care of his things.

He has a good memory of places, is fond of travelling, of history, and more especially of lively, active doings ; he enjoys seeing life in its more active conditions. He thinks more than he observes, but he observes closely when he gives his attention to it.

He can regulate physical motion accurately, and can judge of the laws of gravity. He remembers faces and forms, and is a great admirer of physical beauty in persons, nature, or art. He is not a copious talker : he has something to say when he does talk.

His mind would be better balanced if he were more social and warm in the manifestation of his affections ; if he had more destructiveness, to give more real force to his character ; if he had more ingenuity, power of arrangement, and system.

More language would help him to appear to a better advantage on the platform, and more animal life and magnetism would enable him to infuse his ideas into the minds of others more easily than at present. L. N. FOWLER.

THE EQUALITY OF BRAIN POWER IN MAN AND WOMAN CONSIDERED ;

WITH THE LATEST SCIENTIFIC DISCOVERIES ON
“ WOMAN’S SKULL CAPACITY.” *

UNDERLYING every phenomenon of the natural world and psychological occurrence, there is found a fixed causative relation of two principles, different and unequal, yet of such a difference

* By Dr. Manouvrier.

and such an inequality that, like man and woman, who constitute the type of the whole of nature (both visible and invisible), each is the complement of the other ; one being gifted with energy to act, and the other with equal energy and aptitude to re-act. All phenomena, alike of matter and of mind, resolve into this duality, whether physical or spiritual, animal or vegetable ; life always presents itself as communicated through one single formula, the reciprocal action of reaction of complementaries.

Binary causes lie at the base of all things. The sun and moon cast their light upon us, the rain falls, and the waves roll, the spheres perceive their rotundity, and preserve in their motions all as the result of underlying dual forces. The fabric of nature, like its phenomena, resolves everywhere into dualities. Land and water, male and female, the straight line and the curve, do but express prominently a universal principle in that admirable adaptation of things to act and re-act.

No other source of phenomenon, either in the animate or inanimate world, shows so distinctly the purpose of God, that man and woman should keep the equilibrium of life by being counterpart to each other. The entire brain and nervous system with their wonderful appendages of muscles and bones are alike on both sides of the body.

The crowning act of creation was the production of two human forms, each external to the other, each a microcosm embodying all the mysteries of nature, and yet with their relative properties and affinities so proportioned that each should be the ideal, the life of the other.

Man and woman are bisexual in themselves, but in relation to each other they are complementary. In man, the masculine element is the positive, the feminine element is the negative principle ; while in woman it is exactly the reverse.

"Every object in the universe is masculine and feminine, therefore it is that in every organic atom, and in every created form, male or female, the elements stand opposite each other, holding each other in place, inspiring, impelling each other to use, binding up from invisible bases the material containants of life." We find there are sympathies and unions between organ and organ, between function and function ; between the nervous fluid and the blood ; between the heart and the lungs ; between the cerebrum and the cerebellum, which are too abstruse for popular comprehension, justifying the remark of Galen, that the anatomy of the human body is a sublime hymn in honour of the Deity. The sexes exist in all things. Divine goodness and Divine truth are the recognised sexes in God, and are drawn together

by magnetic affinities. As every object in the universe is masculine and feminine, the attractions between the complementary forms produce all the motions and organizations of spirit and matter. "The union of these elements is the vital principle of creation, the secret cause why one thing coheres to another, as atom to atom, which the philosopher calls attraction ; between congerie and congerie, which the chemist calls affinity ; between iron and loadstone, which everyone denominates magnetism." Spirit and matter hold to each other the relation of positive and negative, or masculine and feminine, spirit being the living, active, impregnating element, matter the passive and receptive. The sun and earth are positive and negative to each other. The sun impregnates the terrestrial atmosphere with his masculine qualities, and the earth conceives and brings forth all the forms of vegetable, mineral, and animal life. Heat and light are the positive and negative solar elements. Heat is the feminine principle which expands and opens ; light is the masculine element which penetrates and illumines. They co-operate in the creation of all earthly things. Magnetism and electricity are their counterparts or analogies in other fields. Land and water under different forms are repetitions of the same eternal truth. Water is the male or positive element, from whose substance the land or female element was deposited, which recognises the reason why man has always called the earth his mother, and the corners of the earth his daughters, Europe, Asia, and Africa ; while water has always been called by the most ancient philosophers the father of all things, the luxurious crops, the joyous groves, the races of men and all living tribes.

In minerals the masculine and feminine elements are found by their relative to the electro-positive or electro-negative pole. So in plants this sexuality is apparent. In the letters of the alphabet we also see the sexes distinguished—the vowels being feminine and the consonants masculine elements of speech.

Words again are both masculine and feminine. Speech and music are again relatively male and female. Music being the organization of sound, while speech is of words. Bass is the masculine and soprano the feminine element in music, which must be united to produce harmony of effect. Woman's voice divides itself into soprano and contralto, as man's is divided into tenor and bass.

Being satisfied with the duality of nature in all things, we will pass on to consider the equality of brain power in man and woman.

In a well-written treatise, Cornelius Agrippa, in 1509, maintained the superiority of woman over man, and proved his arguments by the choice of her name in the first instance, her order of creation, the material of which she was created, and the dignity that was given to woman over man by God ; and further by nature, by human laws, by various authorities, and by reason—all of which were demonstrated by examples. We do not wish to put forth as our opinion the superiority of one over the other, but desire only to sift facts and leave conclusions to follow individual thought. But what is most important to man at the present day is to consider if the feminine element is a necessity to his higher well-being, then the highest possible culture must be devoted to it. In one sense woman has been considered superior to man because she is the central highest figure in the creation. The last created being receiving first the Divine life, she intervenes, as it were, between man and heaven.

The vegetable kingdom is formed out of the mineral, and lifts it higher toward the vital world.

The animal kingdom is formed from both and comes still nearer to the spiritual. Man is builded upon all kingdoms below him and connects with heaven. Woman is not another kingdom separated from him, but a part of himself, reaching higher into the celestial atmosphere.

Agrippa further maintains that as to soul the man and woman are alike, but as to everything else the woman is the better part of the creation. In the first place, woman being made better than man, received, or was given, the better name. Man was called Adam, which means earth ; woman, Eve, which is by interpretation, life. By as much as life excels earth, woman, therefore, excels man.

Things were created, too, according to their rank. First, indeed, incorruptible matter ; but, afterwards, out of that matter, more or less corruptible things,—beginning with minerals ; then herbs, shrubs, trees ; and then zoophytes ; then brutes in their order—reptiles first ; afterwards fishes, birds, quadrupeds ; lastly, the human beings ; out of these, first the male, finally the female, in which the heavens and the earth and their whole adornment were perfected. The Divine rest followed, because the work was consummated ; nothing greater was conceived : the woman was thus left the most perfect and the noblest of the creatures upon earth.

Mrs. Farnham, in "Woman and her Era," maintains that woman is a distinct creation, coming after man and superior to him, having more functions, uses, and powers, and therefore destined to rule the world. I do not hold the opinion

that she is necessarily superior, all things considered, or that she has more powers, but I do believe that love and woman will certainly save the world. However, this will only be done in working in harmony and side by side with man. Anatomically we may say that man and woman are alike, but they differ in degree of development, according to the functions of paternity, or maternity, to be used. He can never mother the race. She can never father it.

It is generally supposed that with the same education, the same opportunities and pursuits, the same surroundings, etc., man and woman would grow very much more alike in intellect. A few biased minds, like Dr. Moore, believe that the German mode of educating women is the best, which is on a very different plan to the education of man. Such men hold the opinion that woman is only a shadow, an image in a mirror, or an echo.

As neither man nor woman would leave any destiny without the other, so the enigma remains a nineteenth century problem, namely, How far shall women be educated? Most people have become weary of hearing of the physical deterioration of woman, from the effects of educational over-pressure, especially as there is no conclusive evidence to show either that our present race of women has generally deteriorated, or that the over-training of their brains is the rule rather than the exception. It does not require an initiation into the art of mystery of the medical profession, to be able to agree with Dr. Moore, that excessive cerebral exertion is injurious to the healthy development of the vital powers, and all right-thinking people will agree with him in protesting against the exercise of the former to the detriment of the latter. He can hardly expect, however, a unanimous assent to his good old Tory notion that it is the *exclusive* mission of woman to nurture and administer to the domestic comfort of man, and that consequently she should not be allowed, or at any rate not encouraged, to compete with him even in his most pleasant and most remunerative occupations. These occupations are such as undoubtedly require the cultivation of the brain, and Dr. Moore seems to think that in proportion as women exercise their intellectual faculties, they will become unfitted for the discharge of maternal functions. He admits that woman is possessed of a brain, but on the ground that it is a trifle lighter than that of man, he denies her right to utilize it in acquiring proficiency in those callings which, as we have hinted, constitute the most agreeable and most profitable of human occupations. To assure us that the higher the brain the less the intellectual power, may possibly be scientific;

but the argument cannot go for much until scientists can explain away the argument satisfactorily that quality in everything, and especially in brain capacity, is of more moment than mere size or weight, and at the same time clearly explain how it is that the people who happen to have the biggest and heaviest brain weights yet discovered are South African savages. Again, Dr. Moore says that experience shows that woman has less capacity than man in dealing with the abstract in philosophical, scientific, and artistic subjects, and that this fact is in accordance with the best development of the frontal convolutions. Our answer to this is that women have never had equal chances with men for giving the world assurance of their mental capacity. Yet in eleven mixed competitive examinations, woman has taken the highest position this year.

Dr. Moore says that music, painting, poetry, literature, and cookery have been as free to woman as to man, and yet a Beethoven, a Titian, a Shakespeare, or a Bacon has never appeared in their midst. It is not true, however, that the fine arts above mentioned have been as free to woman as to man, because women have had to cultivate them under far greater difficulties and disadvantages than men have experienced ; and even if it were true, it would be absurd to assume the inferiority of women generally as artists, &c., because they have not manifested colossal genius. It would be quite as reasonable to assume that the Americans are intellectually inferior to the Europeans because they have produced no great men of the class who are "not of an age but for all time." As a matter of fact, however, the greatest poem of this century, according at least to the greatest of our art critics, Mr. Ruskin, has been written by a woman. We refer, of course, to Aurora Leigh. Such assumptions as to the inferiority of women are altogether out of date in an age which has produced Mrs. Browning, George Eliot, and Harriet Martineau. Dr. Moore asks why, if women are to compete with men in their intellectual pursuits and learned professions, they should not also compete with them in their rougher occupations of soldiership and manual labour. As the doctor considers that the physical development of woman is of much more importance than their mental development, we are rather surprised that he does not advocate their being trained to those hardy and invigorating out-door occupations which would greatly conduce towards the attainments of the object which he advocates. Some women shun the duty of individuality from the terror of being called "strong-minded females" or "men in petticoats;" but because I like a little salt to my

meat, there is no reason or cause to think that I wish to be pickled in brine, so there is no fear of true women losing their womanliness through retaining their individuality. Yet some of the very ones who oppose the higher educational advantages being extended to women imitate men in their dress in a bold and unladylike fashion. These are not by any means the noblest or the most highly enlightened women. You do not find the College graduates don man's attire, especially in the conspicuous elements of it, except the B.A.'s gown, which is more an honour than a following of fashion. What is it that makes American women "charming and winsome in manner" (as Matthew Arnold called them) who have introduced into the conventional social life here an *esprit* and brilliancy unknown before? It is simply because they live their own fresh natural lives, instead of tamely echoing those of others. The mind, freed from mental swaddling clothes, begins to grow, becomes interested and interesting.

It is as John Stuart Mills says: Many women, by not following their own nature, have no nature to follow; their capabilities are withered, and starved, and they are generally without either opinions or feelings.

J. A. F.

(*To be continued.*)

THE GLEANER.

AT length the August rains have ceased, and we have dry fields and a smiling sky. Fleecy clouds are floating lazily athwart the heavens, driven by a south-east breeze. There is just enough stir in the air to move the leaves of the trees and give a suggestion of whispered conversation. The black poplars are especially gossipy, and with cause, for they are dropping their leaves and carpeting the road side a pale orange green. In the hedgerows the hips and haws are of a ruby red, and in yonder copse the foliage of the wild cherry is turning to a bright crimson. The road skirts the hill-side, and down below in the valley are corn-fields, all of them cut now, and most of them carried. But in several the long rows of sheaves are still standing, whilst in one the last load is being carted away, and one or two gleaners have ventured into the field. The shouting of the carter to his horse, urging it on, comes up faintly from the distance—very faintly, and mingles with the cry of the swallows as it comes. The swallows are very active, wheeling hither and thither in the air, and squealing as they go. Soon they will be going from us, and

knowing that, we enjoy them the more. The birds generally are still, although the hoarse call of the rooks comes up the slope every now and again. There is a delicious hush upon the fields that is soothing to the jaded sense. This is always the effect of Nature upon the spirit. Even the effect of a storm is to soothe and calm one. There is no irritation in Nature : we recline upon her bosom, and are quiet.

At the foot of the slope the hedges are covered with the sweet-scented flowers of the traveller's joy. Here and there amongst its cream-coloured blossom are upshooting tendrils of black bryony and tufts of the purple flowers of the bitter-sweet. Beneath, almost hiding the ditch, are tall nettles in flower. The blossom is of a grey-green, and has a penetrating odour. Here and there amongst them are tall willow herbs. On the firmer ground are sturdy thistles, the winged seeds of which goldfinches and linnets are tugging at, and scattering to the wind. It is interesting to note with what energy they go to work. On a low alder near by a pair of blue-tits are no less busy examining the bark for grubs or what not. They sing as they work. On neighbouring trees are a couple of robins. They too sing to each other. One drops into the lane every now and again, scoops a fly as he goes, recovers himself deftly on the wing, and returns to his perch without having alighted. Presently he takes up his song again. What a contented little fellow he is ! And well he may be, so sleek and fat is he. There is none to enjoy the fruit of his labour. Everywhere there is abundance for these little pensioners on Nature's bounty.

Just beyond the hedge is a sturdy elder tree, its rich clusters of dark purple berries drooping with their own weight. Every now and again a thrush comes out of the copse, alights on the elder, and feeds heartily on the berries, and so away. In the stubble field, too, birds are feeding on the shed grain. Amongst them are a flock of stock doves from the wood above. They croon whisperingly as they fill their crops.

The birds are not the only harvesters in the stubble. At the further side of the field the white tails of rabbits can be seen. They are contentedly nibbling the fallen ears, but are ready to bound away at the slightest sound.

But there is still another gleaner at work. It is a woman. The last waggon-load rolled away early in the afternoon ; now it is evening, and there is a deepening glow in the west. The poor woman has been at work for several hours. She has finally picked up her last ear, and now she takes a handful of straw to tie round and make a little sheaf of her gathering. This done, she walks to the side of the field, near the gate,

where the result of her afternoon's toil lies in a heap. It is a goodly pile, and makes quite a large bundle when tied up in her shawl. It is soon done; and now she will throw it upon her head, and away.

But no; there is something apparently yet to be done. Ah, there is another bundle in the grass there, under the shade of that alder. It is a baby of a few months old. The gleaner goes down on her knees and her face is irradiated with a smile as she imitates the gurgling sound uttered by the babe. He is a chubby-faced little fellow, with bright rosy cheeks; he has slept in the warm genial sunshine half the afternoon, and is now ready to make his mother's heart glad after her toil with the music of his baby tongue and the soft ripple of his smile.

She takes him on her left arm, and with her strong right hand she swings the bundle upon a rail, and thence hoists it upon her head, where it balances lightly.

Now the sturdy woman leaves the field, closes the gate after her, and takes her way down the road. She walks along at a measured pace, holding in her right hand a small basket which has contained some refreshment for herself and the infant. Her sleeve is turned up, showing a strong, well-rounded arm. Her blue cotton hood hides the back of her neck, but it is partially thrown away from her face to give air and to let the boy see her smile. It is a good face, strong, and even handsome, ruddy and brown, with eyes gentle and kind, and of the nutty brown hue of her hair. She stops neither to rest nor to shift her burden, but walks straight on till she comes to the bridge at the end of the village. There she tarries. Someone is coming along the lane which skirts the brook. It may be her husband and son who are out at work, and will come home that way. But it is not they.

Her cottage is a short distance up the village. She is hardly within sight of it ere a little girl runs out to meet her. It is Nanny, who has stayed at home to mind a sick brother, and is glad that mother has returned. She relieves mother of the baby boy, who utters a slight whimper at being taken from his nest. He had expected other treatment. However a word quietens him. At the door another little fellow tugs at his mother's dress, and when the burden is off her head she sinks down into a chair and embraces and kisses him.

But the good woman must not rest yet. Supper has to be prepared. Her hungry husband and son will be home soon. The preparations do not take long, however; and now, with hair put straight, and cleansed face, the sturdy matron seats herself on her low chair and suckles the little one, whilst the kettle sings above the faggots newly put in the grate, and

Nanny lays the table for the frugal meal. The sick boy sits by his mother's side, his head against her knee, and watches the leaping and crackling of the flames, his little eyes full of wonder and intelligence—and full of sadness too. For, young as he is, he knows the sorrow that lives in the homes of poor men. His little feet are coming out at the toes of his shoes. Poor boy ! there's where the sickness is, and so he has been kept in all a summer's day.

The mother broods, the fire crackles, the flames dance, lighting the cottage with fitful gleams, the kettle sings, the brave boy sucks, while without night gradually falls, and enwraps the world in its mantle of grey. The mother broods—sad, yet happy with her babe at her breast, happy with her children by her side, happy that her tired husband's hand is even now on the latch. Her eldest-born, a little man of ten summers, who must earn his own living, is by her side, ready to drop with fatigue. He has been out since the sun rose an hour high, toiling for the bread which he has barely eaten ere his weary head has fallen forward upon his plate and he is asleep.

The "sick" boy sits on his father's knee, the babe sleeps on his mother's breast, Nanny rocks quietly in her little chair between the four, and silently in the flickering firelight they brood. They are all too tired to converse ; they have no amusements ; candles are a luxury ; they have only love and sleep for their comfort. Nearly all else has been denied them, but God has secured them these. So they sit and brood for a few brief moments ere the firelight dies.

The world, too, is brooding to-day over the mystery which dimly occupies the minds of father and mother. Made in the image and likeness of God are their children, they are told, and yet the little boy-image must be sick all a summer's day for want of a pair of shoes. With all their toiling he must want. Will a solution be found to that mystery ? It must. The Hand that provides plenteously for the birds, that gives sunshine and rain for all, that causes to grow of His own sole might all that we have—be sure of it, He did not do this that some might live in wanton fulness whilst others starve. There are untruths written in the books of men ; there is none in the book of Nature.

We do not read in that book enough.

The little household is now wrapped in slumber, and a sleepy wind murmurs through the trees. Scarcely another sound is to be heard, save now and then the distant bark of a dog. It will be late before the now waning harvest moon rises ; meanwhile the stars have the vault of heaven all to

themselves. How they glitter and glow as they move over the willows and the poplars! They look like a mystical handwriting upon the walls and ceiling of man's house—a hieroglyphic of deep and solemn meaning, which it would be well for us to be able to read. But we can only guess at its import. Alpha is yonder in the Hyades; Omicron, too, is there, and Omega. But who can tell their meaning without a key? No one. And yet, if one listens to Nature's voice, and to that voice which "undertones" it all, and which seems to breathe upon us from those stars, we may fathom some of their meaning. Is it not there written: "I am everlasting, and everlastingly just; everything beneath this glittering roof is Mine, made and sustained by My hand. If any man say, 'This is mine,' he shall be set upon a bare rock, and shall show what he can do. I am —"!

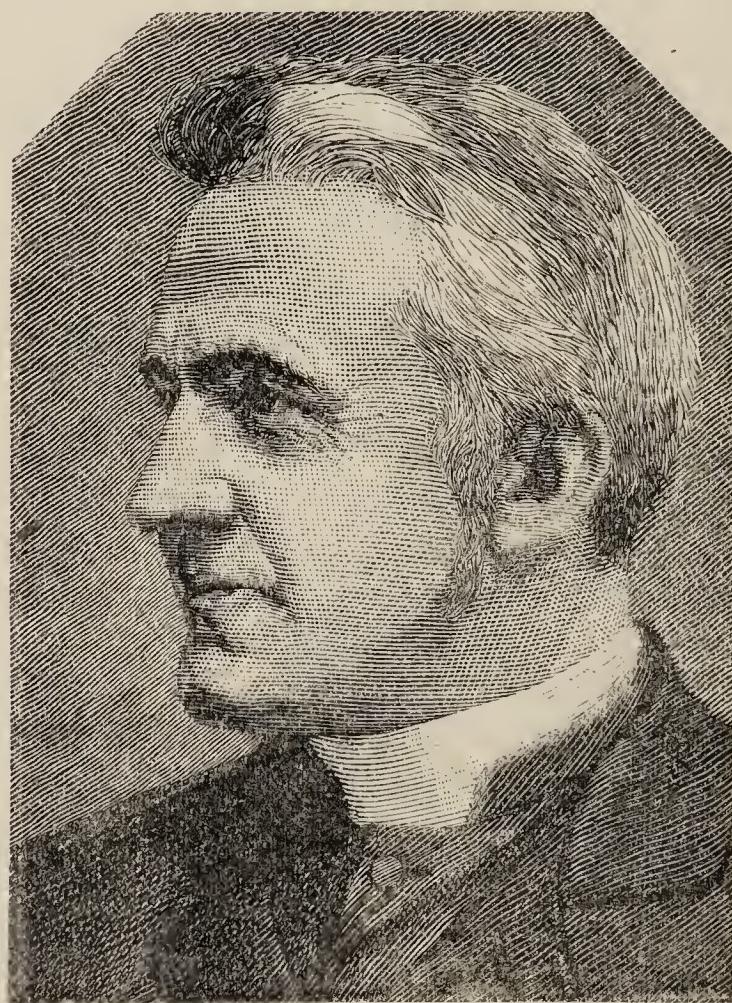
If one could only read it all!

A. T. S.

MEN AND WOMEN OF OUR TIMES.

THE LATE CANON LIDDON. The head of this gentleman was quite symmetrically formed. This fact, joined to his highly susceptible, vital and mental temperaments, rendered him very ardent, earnest, intense in his feelings, and capable of using his powers to good advantage. His head indicated great perceptive power and ability to acquire knowledge. The distinguishing bent of his mind was to practical subjects. He had not only a great thirst for knowledge, but also a great desire to impart that knowledge to others. The strength of his character culminated in his moral nature, hence he must have shown a great eagerness for moral advancement, and willingness to labour for the improvement of others. Few men were more sincere and in earnest than he was. His imagination, though strong, did not interfere with his great perceptive power, and desire to collect facts. He was forcible and sufficiently copious in speech to infuse his ideas into the minds of his listeners, and to hold his audience spell-bound to the very close of his addresses. He was fully developed in the social brain, which must have had a warming influence connected with his labours, and his affections were a powerful stimulus in his efforts of love and charity. He had more than ordinary application of mind, hence was most thorough in his studies, and consecutive in his ideas. His moral brain and perceptive faculties had the ascendancy, and he must have been thoroughly interested in instructing and elevating mankind. He was not proud, haughty, imperious, or dictatorial,

but must have had a great amount of personal influence because of his strong sympathetic nature. He possessed great tact and intuitive power. He readily grasped the characteristics and mental qualities of his fellow-men, hence he could see the good in every one, as well as the points for criticism. Canon Liddon was the son of a medical man at Taunton, where he was born in 1829. He was educated at Christ Church, Oxford. In 1854 he became Vice-Principal of Cuddesdon. In 1863 he was appointed select preacher at the University, Oxford. The sermons before the University had



(From Photograph, Church Agency, 51, Threadneedle Street.)

a large circulation, and his Bampton Lectures in 1866, on "The Divinity of our Lord and Saviour Jesus Christ," increased his growing reputation. It was, however, his "Lent Lectures" at St. James', Piccadilly, which first brought him before the London people. In 1870 Mr. Gladstone offered him a canonry of St. Paul's. The secret to the maintenance of his pulpit power is probably in the fact (it is said) that he declined to be constantly preaching. "The magic of his voice, the charm of his manner, the keenness of his eye, the elegance of his diction, and his almost Pauline powers of sarcasm, rendered his sermons rare intellectual treats." He popularised Church-going as no man has been able to do at St. Paul's. All classes

thronged to hear him ; but, although so effective a preacher, he never excelled as a platform orator, and rarely allowed himself to be persuaded into appearing as such. He was offered the Bishopric of St. Albans, but refused it. He was a good story-teller when in congenial and sympathetic company. With reference to the late Canon's liking for cats, visitors at Amen Corner years ago still remember two cats named "Tweedledum" and "Tweedledee." Once when he was preaching at Oxford he became so ardent in what he was saying that the perspiration ran down his face, while he pushed and pushed at his stock, which evidently inconvenienced him, till some of it became unwound, and, at last, in a despairing moment, the great preacher tore it off and threw it down in the pulpit.

THE LATE MRS. BOOTH, mother of the Salvation Army, possessed a character of unusual purity, and a brain power of exceptional quality and exaltedness. Her womanly instincts



were exceedingly strong, and stood out prominently in her character, giving her refinement and modesty. The force of her moral brain fired her enthusiasm, and compelled her to take a leading part in the work of her life. She had a particularly sympathetic and philanthropic cast of mind, a high spirit of reverence for the great and noble in everyone and

everything. Her mind soared above the ordinary level in a way that gave an inspirational turn to all she did, whether she was rocking the cradle or addressing a mass meeting at Congress Hall, where we had the pleasure of examining her head. She had large hope and spirituality ; hence she was not easily cast down or disheartened, but stimulated to fight even in a minority, if her convictions led her to do so. Her forehead was high, and fully developed over the eyes, and especially in the region of causality, comparison and intuition. She must have been a born planner, and capable of organizing her own labours and those of others. Her sense of principle was particularly marked. She never wavered in performing her duty, and was morally strict in regard to her own conduct and to that of those under her charge, yet her criticism must have been particularly tender with the erring ones. Her domestic faculties were such that they stamped her as a true mother in every sense of the term. Rarely do we find such a rich combination of force, executiveness, and mental availability, with such susceptibility, tenderness and pathos. It is said of her, by a contemporary, that, for the greater part of her life, Mrs. Booth was unknown to the world, but devoted her early married life to the rearing and training of her children. One characteristic of her life she referred to herself. When her husband was a Methodist preacher, he once fell ill. "I not only took his place in the pulpit, and discharged his pastoral duties, but I took care of my four little children, the eldest a little over four, while I was nursing my baby. Many a time I was thinking of what I was going to say next Sunday, and between times noted down with a pencil the thoughts as they struck me." Her mind was then ripening for her more effective work, both as a speaker and writer. By the Salvationists she was looked up to with great reverence, and considered a prophetess. She has been the means of opening and leading the way for multitudes of women to follow in her footsteps. Though not of robust health, she used her energy well, and accomplished more than six ordinary women who have no delicacy to struggle against. Few women of her day have exerted so wide an influence as Mrs. Booth. She was born in 1829. Her last message was : "Love one another, and meet me in the morning."

THE talent of success is nothing more than doing what you can do well, without the thought of fame ; in other words that the talent of success is simply the talent of perseverance. So said Longfellow.

THE METAPHYSICS OF PHRENOLOGY. No. II.

IT is not satisfactory to be always on the outside of a subject, any more than it is to be always on the outside of a house. There is, be assured, an outside as well as an inside to everything. Everything? Yes: everything; and whatever can be treated as a physical, mental, or spiritual entity is so treated because it is something; for what is not a thing is simply nothing. After that, to waste time and words to prove the science of phrenology to be something, would be to wrangle with words to no profit.

But phrenology is not admitted merely on sufferance as being a thing; for with its claims and its results now so long before the world, it is a very important thing, one of those things capable of being employed to a wondrously helpful and beneficent purpose, and therefore worthy of the most profound and interested attention by the most competent and capable of the human family. It is all that, or it is a fraud; but it is too late in the day for anyone to withstand the claims of phrenology on the pretence of its being a fraud; it has fought its own battles with perfect success hitherto, and the longer it lives the stronger and more capable it becomes, thereby forecasting a much more useful future than prejudice and bigotry has suffered it unmolestedly to enjoy in its past. We claim with quiet confidence, therefore, that phrenology will yet be one of the best appreciated and most highly honoured sciences in the entire circle of the same; for it will yet be seen that in the whole range of the comprehensive science of anthropology, the science of phrenology occupies the most prominent, the most exalted, and the most authoritative and commanding position amongst its many useful affiliated branches.

The physics of phrenology deal with the subject in its beginnings, in its primaries or alphabet, in its exterior and preliminary belongings; it is its childish stage, and through it has had to struggle and fight to make headway. But, having made that headway, it is high time it went into the higher phases, and brought clearly to view the metaphysics, the within or very essential centre or core of itself. Everything metaphysical demands the employment of other faculties or senses than those which have to do with physical things, for the metaphysics of every subject are invisible and intangible things—that is, so far as the physical senses are concerned; they are therefore occult—that is to say, hidden—from the

exoteric and materialistic philosopher, but they are nevertheless clearly in view to one who has spiritual eyes and ears, the spiritual faculties which alone can deal with matters of the inner cause world, the home of everything metaphysical.

To grasp with clearness the metaphysics of phrenology, man as a compound entity must be understood in all his parts. Man mental is the subject of phrenology, so far as the physical phase of the theme or science is concerned ; man physical is dealt with by the sister science of physiology ; but man spiritual can only be dealt with by the metaphysics of these sciences. Man is tripartite—body, soul, and spirit. Physiology deals with the body, phrenology deals with the soul or mind, but the metaphysics of both will open up the truly spiritual in contradistinction to the merely soulful phase of thought and dogma which has contrived for many centuries to pass for what it is not and can never be—the truly spiritual sphere of science or thought. Now metaphysics are nothing if not truly spiritual. To grasp these important distinctions between soul and spirit is imperative before any marked advance can or will be made in the metaphysics of our subject. The Word of God, as a living and powerful thing, keener and sharper than any two-edged sword, pierces—we are told—to the dividing asunder of soul and spirit, and between the two there is such a marked and a manifest distinction that they never could be confounded were they each clearly and definitively sighted.

Although few seem to have grasped the thought, the tabernacle and temple of the Jewish economy were constructed upon the plan of man's tripartite nature. Each of these had an outer court, an inner place called holy, and an innermost called the holy of holies. Man's body is the outer court, his soul is the holy place, his spirit is the holy of holies. The soul is an intercomediary position of man's entity, a go-between the body and the spirit. Either the flesh or the spirit commands its services ; and if the flesh does so, then what Christ uttered is eventually realised—the body and the soul together are destroyed. On the other hand, when the spirit comes into the ascendancy and rules the entity, the flesh nature is crucified by it along with all its loves and desires ; and then the spirit being actually so much of the eternal, immortal, and invisible God, is *en rapport* with itself in all its other parts, and so is in touch with all truths, needing not therefore that it be taught in any way by man. Man can be religious on any one of the three planes of his tripartite nature, according as he chooses to anchor himself. That being the case, the tens of thousands are contented with their religion in

forms and ceremonies, as were the multitudes of the Jews of old who were frequenters of the outer court. That being the case the tens would and do aspire higher, and come to the holy place and anchor contentedly there, as did the Jewish priesthood. That being the case the ones would not be satisfied until they had penetrated to the very core and essence of the thing, until they had entered within the veil which was torn down by Christ that man should have access there, and this did the chief priest in symbol in the old Jewish economy. It will yet be seen that this is the true significance of those ancient records, and that while they are dealt with as at present, they are only dealt with superficially and so exoterically, and to no good and practical purpose.

But I have only broached the subject thus so as to throw a clearer and stronger light upon my theme,—the metaphysics of phrenology—and to assist my readers to grasp the idea of what is truly spiritual. Every phrenological faculty has a spiritual function when once the true spiritual plane is attained, and is really moved and lived upon. See how the Great Master of spiritual things spoke to the organ of acquisitiveness :—“ Lay not up for yourselves treasures upon the earth, where moth and rust do corrupt, and where thieves break through and steal ; but lay up for yourselves treasures in heaven, where neither moth nor rust do corrupt, and where thieves do not break through and steal.” Who will say, after duly considering that passage, that acquisitiveness has not a spiritual function to perform ? The same is to be seen with reference to approbateness ; for Christ said, bearing upon its highest function, “ How can ye believe who receive honour one of another, and seek not the honour which cometh from God only ? ” And again, “ I receive not honour from men.” Approbativeness then, when applied spiritually, is as much a spiritual faculty as any other. The same is equally true of the domestic group of faculties. There is more fiction than reality for very sufficient reasons in our supposed ties of fleshly birth, if we were only conversant with truths which are now mostly hidden from our view. There is only reality apart from fiction in the thought of relationship as it was expressed by the Great Master of spiritual truth and metaphysics when He queried, “ Who are My mother and My brethren ? ” And then in reply stated, “ He that doeth the will of My Father who is in heaven, the same is My brother, and sister, and mother.” Truth inheres only on the higher spiritual plane ; illusion is inseparable from everything physical. What pertains to physics alone may be regarded as relative in contradistinction to absolute

truth ; as temporary in contradistinction to eternal truth ; as "the present truth" (quoting the Apostle Peter's words) in contradistinction to the coming truth. As man evolves into the higher possibilities and spheres of life, motion, and being, he will open his inner senses to widely different potencies and realities of the higher spirit nature, which really govern and form all the appearances which strike him upon the physical plane where he now appears to be more or less contentedly at home. But there is a feeling of unrest at work, which is a prophecy of something trying to come into man's semi-consciously wanting experience. He would fain fill his inmost with the carob-bean pods fed to swine, but that inmost cannot be so fed ; man must—as the Prodigal Son did—"come to himself," and then in his very innermost he will discover the mystery hidden for ages and from generations, the very metaphysics of phrenology and all science besides, "the true light which lighteth every man that cometh into the world." There will be no real enlightenment possible to man until this is an assured fact.

THEODORE WRIGHT.

PHRENOLOGY
PROVED, ILLUSTRATED AND APPLIED.
(Continued.)

ORDER I.—AFFECTIONAL FACULTIES OR FEELINGS.

Genus I.—Animal Propensities.

Species I.—Domestic and Social Propensities.

AMATIVENESS.

Reciprocal attachment and love of the sexes.

This faculty prompts many of those kind attentions and obliging manners which the sexes are accustomed to show to each other ; greatly increases their mutual attachment and tenderness ; gives correct reciprocal ideas of taste and propriety in whatever concerns the other sex, and secures to them a kind and genteel treatment—thus promoting, as much as any other faculty, general politeness, urbanity, refinement, kindness, and social happiness. The proper exercise and expression of this faculty, so far from being the least gross or indelicate, is as perfectly inoffensive as that of any other ; and is so far from being the least exceptionable as to be even indispensable, to a virtuous character, especially when modified by large adhes., approbat., benev., conscienc., ideal., mirth., and the reasoning faculties. The influence of this faculty in the intercourse of the sexes, is highly advantageous to both, inasmuch as it has a tendency to make man civil, courteous, and humane, condescending, polished, affable, &c. ;

and woman agreeable, graceful, and elegant, accomplished, sensible, and elevated in character, feeling, and purpose.

VERY LARGE.—One having amat. very large, can govern it by the aid of large or very large firm., conscien., and reasoning organs, and by avoiding the causes calculated to excite it, and possesses extraordinary depth, strength, and power of this passion. One having very large amat., with large or very large conscien., firm., benev., and reasoning organs, will exercise towards the other sex, strong feelings of kindness and love ; is ever ready in his attentions to them ; is but ill at ease without their society ; and enjoys intercourse with them in the greatest possible degree ; with conscien. moderate and the reason-



ROBERT BURNS.

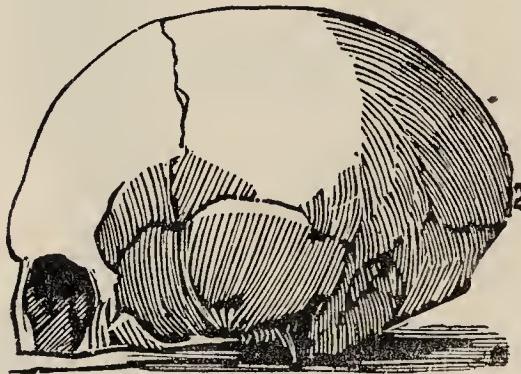
He possessed a warm, ardent, and loving nature.

ing organs only full, is strongly inclined and urged to profligacy, licentiousness and vulgar allusions.

LARGE.—One in whom amat. is large, is extremely fond of the other sex, and of their company, and alive to their charms ; is a favourite with them, and readily ingratiates himself into their good will, even though he may be possessed of some qualities that are disagreeable ; has a great influence over them.

One having large amativ. with large or very large adhes., is an ardent and devoted lover ; and with ideal. also large adds to his love that warmth, and fervour, and intensity that make it romantic ; with firm. also large or very large, will be constant ; but with these organs large, and firm. moderate, will be liable to be inconstant, and possess an attachment by no means exclusive ; with ideal. and approbat. very

large, secret, and destruct. large, benev., adhes., and caus. only full, and conscienc. moderate, will sometimes act the part of the coquette, rather than be satisfied with individual attachment ; with large adhes., philopro., benev., and conscienc., will be inclined to marry, and be pre-eminently qualified to enjoy the pleasures of home, family, and friends ; and, with large combat. and destruct., will defend them with boldness, protect their rights with spirit ; with large approbat., and ideal., will be over-anxious to obtain the approbation, and avoid the disapprobation, of the other sex, and exceedingly sensitive to their praise or censure, and too eager to follow the fashions demanded by the taste of the other sex ; with moderate acquis., and large approbat. and benev., will spend money freely for their sakes ; with large secret. and adhes., will feel much stronger attachment than express, keep his heart much to himself, affect comparative indifference ; and, even when the fire of love is burning fiercely within will express it equivocally, especially at first ; but with



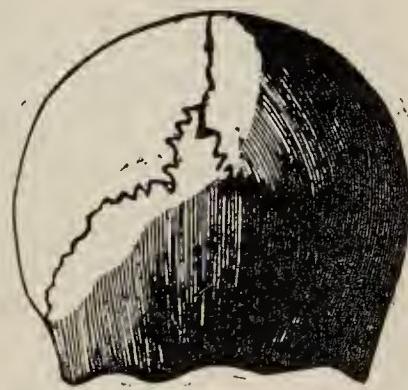
Large social brain.

secret. moderate, will express it without reserve, throw the portals of the heart wide open ; and with self-e. moderate, the more readily give up to the dominion of the passion ; but with self-e. firm, and large intellectual organs, though he may be deeply in love, will have too much pride to be subdued by this passion ; with very large adhes., ideal., approbat., and mirth., and caus. only full, will prefer the company of the beautiful, the gay and the accomplished of the other sex ; with very large adhes., benev., ven., and conscienc., will choose the virtuous, the devout, the religious, &c. ; with large intellectual organs in addition, almost adore them, but be disgusted with those first described ; with conscienc. small, caus. only full, and acquis. and ideal. large, will be less particular with regard to their moral qualities ; with large ideal., approbat., mirth., hope., aliment., and lang., and moderate acquis., conscienc., and marvel., is given to joke with and about the other sex ; and inclined to profligacy and revelry ; with large conscienc., ideal., mirth., benev., and the reasoning organs large, will express this passion in a very delicate, refined, witty, and acceptable manner ; but with moderate or small ideal. and mirth., in a coarse and vulgar manner : with conscienc. large, if strongly tempted, strongly resists ; and with firm., cautious., and caus. also large, will not yield to the

solicitations of the passion ; but with firm., cautious., and caus. only full, may sometimes sin, yet will deeply repent of it ; and, with approbat. large, suffer intolerably from shame and remorse ; with conscienc. small and caus. moderate, will be extremely liable to abuse and pervert this faculty, &c.

FULL.—One having amat. full, with adhes. and ideal. large or very large, will place a high estimate upon the other sex ; eagerly seek their company, and take great delight in it ; be ardent as a lover, and not insensible to their charms ; with good health and an active temperament, experience, in a high degree, the influence of this passion, yet will possess more activity than power.

MODERATE.—One having amat. moderate, is not particularly partial to the other sex ; may enjoy the society of a few select persons of the other sex, but will dislike their promiscuous society, unless his adhes., approbat., ideal., mirth., or other organs, create attachment to them ; with self-e. and mirth. moderate, large secret., approbat., cautious., conscienc., and ven., will be extremely diffident and reserved, if not awkward and affected, in their company. One having moderate amat., with large adhes., benev., and conscienc., and full compar. and caus. will exercise more of pure love and virtuous affection towards the opposite sex, than of the mere amative passion—of pure and sentimental friendship, than of merely animal feeling ; and, with large ideal., will manifest this passion in a peculiarly refined and delicate manner. This is the kind of attachment generally exercised by those in whom adhes. is commonly altogether larger than amat.



Small social brain.

SMALL.—One having small amat. is not partial to the other sex as such ; does not pay them much attention, nor sacrifice much for their sake, but is rather cold, coy, distant, and less inclined to marry, unless induced to do so by philopro., adhes., approbat., benev., acquis., the intellectual organs.

VERY SMALL.—One having amat. very small is incapable of sexual attachment, and is given to passive continence. This organ attains its full size in the meridian of life.

Phrenology determines the strength and power of this passion, and its liability to be perverted, rather than the virtue or licentiousness of the subject.

The depraved exercise of this faculty, in one or another of those

ten thousand forms which it assumes, is unquestionably one of the most prolific sources of depravity with which mankind are afflicted. This faculty is found to exist in animals as well as in man, and that, too, unrestrained by morality or intellect, and, consequently, far more liable to perversion than in the human species ; yet instances of its perversion in the brute creation are exceedingly rare. The nature of the faculty and the character of the function are the same in both, so that its depraved manifestation cannot be attributed to any natural cause. It must, then, depend upon the education or training of this



EMPEROR OF GERMANY.

He possessed a well-balanced social brain.

faculty. And no wonder that it is thus perverted ; for the nature and the proper function of the faculty, not being generally understood, it has been regarded chiefly in its perverted manifestation.

The question, then, becomes a most important one, How can this faculty be so trained that this growing evil may be checked and remedied ?

LOCATION.—This organ is located in the cerebellum, under the

posterior lobes of the cerebrum, or between the mastoid processes behind the ear : and, when large, it causes this portion of the head to appear broad and thick ; when small, the neck is thin and narrow.

A.—CONJUGALITY.

Union for life ; first love ; the pairing instinct ; attachment to one conjugal partner ; duality and exclusiveness of love.

It is adapted to parents living with and educating all their own children in the same family. Some birds, such as doves, eagles, geese, robins, etc., pair, and remain true to their connubial attachment; while hens, turkeys, sheep, horses, and neat cattle associate promiscuously, which shows this to be a faculty distinct from amativeness and adhesiveness.

VERY LARGE.—Select some one of the opposite sex as the sole object of love ; concentrate the whole soul on the single one beloved ; magnifying excellencies and overlooking faults ; long to be always with that one ; are exclusive, and require a like exclusiveness ; are true and faithful in wedlock, if married in spirit ; possess the element of conjugal union, of flowing together of soul, in the highest degree and with continuity large, become broken-hearted when disappointed, and comparatively worthless in this world ; seek death rather than life ; regard this union as the gem of life, and its loss as worse than death ; and should manifest the utmost care to bestow itself only where it can be reciprocated for life.

LARGE.—Seek one, and but one, sexual mate ; experience the keenest disappointment when love is interrupted ; are restless until the affections are anchored ; are perfectly satisfied with the society of that one ; and should exert every faculty to win the heart and hand of the one beloved, nor allow anything to alienate the affections.

FULL.—Can love cordially, yet are capable of changing their object, especially if continuity is moderate ; will love for life, provided circumstances are favourable, yet will not bear everything from a lover or companion, and if one love is interrupted can readily form another.

AVERAGE.—Are disposed to love but one for life, yet capable of changing their object, and, with secretiveness and approbateness large, and conscientiousness only full, are capable of coquetry, especially if amativeness is large, and adhesiveness only full, and the temperament more powerful than fine-grained ; such should cultivate this faculty, and not allow their other faculties to break their first love.

MODERATE.—Are somewhat disposed to love only one, yet allow other stronger faculties to interrupt that love, and, with amativeness large, can form one attachment after another with comparative ease, yet are not true as a lover, nor faithful to the connubial union.

SMALL.—Have but little conjugal love, and seek the promiscuous society and affection of the opposite sex, rather than a single partner for life.

VERY SMALL.—Manifest none of this faculty, and experience little.

LOCATION.—Above amativeness, below friendship, on each side of philoprogenitiveness. In the lower occipital region.

2.—PHILOPROGENITIVENESS.

Parental affection and tenderness ; love of offspring, and of children generally ; fondness for pets, especially for young animals, and for the infirm and helpless.

If there existed no particular attachment to children as such, the burden of raising and educating them would be intolerable ; whereas the effect of this faculty is to make them to their parents the dearest of all objects, their richest treasure and their greatest delight, a source of their greatest anxiety and solicitude, and, in short, the direct and main object of one of the strongest of the human passions, and this casts entirely into the shade the trouble, and pain, and expense which they cause, and induces the parent to do and to suffer whatever is deemed necessary, and often what is entirely unnecessary, to promote the happiness and the best interests of his child, especially the young child. While children are yet too young to be regarded as friends—the very time they require the greatest attention—they cannot be the legitimate objects of adhes., and, for a similar reason, they cannot come under the exclusive care of benev., of conscien., of reason, or, indeed, of any other faculty ; so that, if there were no faculty exclusively devoted to them, they would never receive that care, and those unnumbered attentions, which their helpless condition demands even to maintain them in existence.

Without this faculty, the action of the other faculties would be less vigorous towards children than towards others ; whereas, their wants demand a much more vigorous exercise of them in their favour. But, with philopro. to direct and stimulate their action towards children, their protection and nursing, difficult and even painful as they may be, are abundantly secured.

It is, moreover, evident, that the duties and the circumstances of woman require of her a much greater endowment of this faculty than is required of the other sex. Accordingly we find that she possesses a much larger organ of philopro. than man. This adaptation of the organ in women to the far greater power of the passion, and of both to the far greater demand made upon them by their offspring, is certainly no unimportant argument in proof of the truth of phrenology.

VERY LARGE.—One having very large philopro. is passionately fond of children, and has them always around him ; and, with very large benev., and moderate destruct. and caus., is in danger of spoiling them by excessive fondness and over-indulgence ; is extremely fond of pets of some description, such as pet dogs, pet horses, and the young and tender of animals generally ; is willing to endure the greatest privations if he can thereby promote their happiness ; values them above everything else, and almost idolizes them ; and with adhes. very large, grieves immoderately at their loss, or is overcome by it ; with moderate or small destruct. and conscien., “spares the rod and spoils the child” ; with very large approbat. or self-e., and only moderate or full conscien. and caus., indulges parental vanity and

conceit ; thinks his own children much smarter than those of others ; delights to exhibit their great attainments, &c. ; and, if very large ideal. be added, would be likely to educate them for show and effect —to teach them the ornamental and fashionable, to the neglect of the more substantial, branches of learning—the fine arts, rather than useful learning, thus making them self-important fops, and vain and gaudy belles, rather than useful members of society ; with very large cautious., indulges a multitude of groundless fears and unfounded apprehensions about them, and borrows a world of trouble on their account : with benev. very large, and acquis. only moderate, makes them many presents ; with the moral and intellectual organs also large or very large and well cultivated, has a happy talent for instructing them, and delights in it.

LARGE.—One having large philopro. is deeply interested in children ; delighted with their company and playfulness, and even sports with them ; generally notices them, and easily gains their affections, by which their government and education are greatly facilitated ; and, if a parent, willingly endures paternal care and toil ; spares no pains in educating them ; with adhes. very large, experiences poignant grief at the loss of children ; and, with concent. large, will pore incessantly over it, but with concent. moderate or small, will feel keenly for the time being, yet frequently be relieved by a change of the subject of feeling : with large amat. and adhes., feels powerfully the reciprocal attachment of fathers and daughters, of mothers and sons, and of adults and children of opposite sexes ; with full combat. and destruct., and large or very large adhes., benev., conscienc., firm., and intellectual organs, punishes children when their own good demands it ; is kind, yet strict ; governs them with decision mingled with mildness and affection, and, with self-e. full, speaks with the authority necessary to secure their obedience ; but, with combat. and destruct. large, is by turns too indulgent and too severe ; and, with self-e. moderate, fails to secure their obedience and respect, and allows them to trample upon him : with large adhes., benev., ven., firm., conscienc., hope, compar., and caus., and moderate approba. and ideal., will regard their religious, moral, and intellectual character as of primary importance; their usefulness, rather than their distinction ; and endeavour to give them a practical and substantial, rather than an ornamental education.

FULL.—One having philopro. full will take considerable interest in children, especially when they begin to walk and prattle ; bear much from them, particularly when combat. and destruct. are only moderate ; and, when they are possessed of high intellectual charms, will often notice and play with them, and generally please them ; and, if he has children of his own, will make strenuous efforts and great sacrifices to provide for and to educate them ; but, with combat. and destruct. larger than philopro., will be rather impatient when troubled by them, and sometimes severe with them ; with large or very large adhes., benev., conscienc., firm., and reasoning organs, and self-e. and combat. at least full, will love children, yet be far from spoiling them by over-

indulgence, and generally secure their obedience, yet seldom be harsh towards them.

MODERATE.—One having philopro. moderate is not very fond of children, and cannot bear much from them ; may sometimes take some interest in them, yet does not like young children ; may love his own, yet does not fancy those of others. With benev. and conscienc. also large, will take all needful care of them from feelings of kindness and duty, without being partial to children as such.

SMALL.—One having philopro. small, with combat. and destruct. large, is generally severe and easily vexed with children ; and, with self-e. also large, and benev. only moderate or full, is domineering, haughty, and arbitrary towards them, and thus extremely unpopular with them, and delights to torment and tease them.

VERY SMALL.—One with philopro. very small will be a stranger to this passion, and deal with children entirely as his other organs dictate.

LOCATION.—This organ is located in the centre of the posterior part of the head, just above the sharp point of the occipital bone, and back of the top of the ears, on the mesial line of the head, and occupies in the brain the third occipital convolution. When the lobes of adhes. are large, and philopro. is moderate, a depression will be found between the lower portion of the two lobes of adhes., but when philopro. is also large or very large, this portion of the head will be elongated. When philopro. and adhes. are both large, and inhab. is small, it assumes a sharpened appearance, running horizontally between the two lobes of adhes.

(To be continued.)

MISTAKEN NOTIONS: PHRENOLOGICAL AND SOCIAL.

(Conclusion.)

IT is a Mistaken Notion to suppose that phrenology leads to fatalism and materialism. Phrenology teaches that the brain is the organ of the mind, and that it is not the mind itself. Mind is spiritual, but unquestionably cannot be seen to us except through physical media. The manifestation of mind is in exact proportion to the brain development. It is found that when any given area of brain is diseased, there is a corresponding disturbance of the action of the faculty which manifests itself through that particular part of the brain. Total or partial idiocy is the result of deficiency of brain, or disease ; while, on the other hand, a large and healthy brain is always capable of powerful mental action.

It is a Mistaken Notion to suppose that a man can perform any particular task without his having the requisite phrenological organs sufficiently developed. Man is responsible for

the right use of his powers. At the same time, there does not appear to be any binding obligation upon him to use them in any special way, excepting so far as to perform his duty to himself, his fellow-man, and his God.

It is a Mistaken Notion to suppose that we can neglect to train and rightly employ our mental powers until "a more convenient season," and then at pleasure begin to do so, expecting to make the progress that would have been made had we begun earlier. If we fail to use our talents they will become weaker instead of stronger, and the very desire to be, and to do right will pass away.

It is further a Mistaken Notion to suppose that any faculty can be excessively exercised without danger of serious consequences. Just as physical fatigue is the indication that the muscular system requires rest, so the mental system has its warnings. As when the muscular system is stimulated to increased effort when already overtaxed, evil results follow ; so when the brain is goaded on in spite of all the indications of weariness, evil results must follow ; and the brain, being more highly organised, thus sustains the greatest injury which is very often irreparable.

It is a Mistaken Notion to suppose that religion and the Bible are the only means necessary to make mankind successful and happy in life. Though they are most essential for the perfecting of character, many auxiliaries may contribute to aid man in moral development. Man possesses innate aspirations after God and a future life. The Bible contains a revelation of God's will towards man, and was given for the guidance of his religious nature.

It is a Mistaken Notion to suppose that a poor unlettered man cannot be as happy as a prince or a king. The highest happiness does not depend on sensuous pleasures, or material or intellectual possessions ; but on personal goodness, with a conscience "void of offence" towards God and man ; and a consciousness of the ever-guiding, loving, and protecting presence of our Divine Father.

It is a Mistaken Notion to suppose that any one man's opinion is necessarily right while the opinions of others are entirely wrong. We often see men of equally good, moral, and intellectual attainments, whose views upon social, political, moral, and religious questions are greatly opposed to each other.

It is a Mistaken Notion to suppose that because a man doggedly adheres to certain principles and opinions to-day, that with the acquisition of more knowledge it is not possible for him to alter his views. A fixed condition of mind, thought,

sentiment, and feeling, is often indicative of narrowness and bigotry. Men of strong intellect and lovers of truth, have frequently been known to change their opinions. Progress may necessitate such changes ; and every one should be open to change when it points in the direction of advancement in knowledge or in the perfecting of character.

It is a Mistaken Notion to suppose that because a man is good, he is necessarily capable of giving a correct interpretation of Scripture. Teachers of religion should be well educated ; especially in regard to the human constitution—physical and mental, moral and religious. They should also be earnest and thoughtful. Such teachers are better able to discriminate between truth and error, and hence are better qualified to implant and establish religious truth in the minds of those who are influenced by them.

It is a Mistaken Notion to suppose that the founders of phrenology were charlatans, ignoramuses, or infidels, although they have been frequently represented as such. Instead of this being the case, they were men esteemed for their high intellectual and moral worth, and were greatly loved by those who knew them best. Dr. Gall, the discoverer of phrenology, and Spurzheim, his coadjutor, were both eminent anatomists and physicians ; and to them science is indebted for its present mode of dissecting the brain. Dr. Spurzheim lectured upon the brain, in London, before the Medico-Chirurgical Society in 1814, and at Bath, Bristol, Cork, and Dublin in the same year. In 1815 he visited Edinburgh, where he thoroughly refuted some of the old erroneous notions concerning the structure of the brain, and established a powerful centre for the dissemination of phrenology. Spurzheim used to say to the Scotch, " You are slow, but you are sure ; I must remain some time with you, and then I'll leave the fruit of my labours to ripen in your hands. This is the spot from which, as a centre, the doctrines of phrenology shall spread over Britain." These predictions proved true. In 1832 Spurzheim visited Boston (U.S.A.), where he delivered a most successful course of lectures, but where, it is to be deeply lamented, he died.

It is a Mistaken Notion to suppose that any established anatomical fact is at variance with phrenology. The most recent discoveries of the anatomists are found to harmonise with the discoveries made by the phrenologists nearly a hundred years ago.*

It is a Mistaken Notion to suppose that a man has one rib less than a woman, because we read that Eve was made of the

* See Mr. J. Webb's "Phrenological Aspect of Modern Physiological Research." Fowler, 3d.

rib of a man. A man has twelve pairs of ribs ; so also has a woman. I have seen people at museums carefully counting the ribs of skeletons to see of what sex they were. "Oh !" exclaimed an old lady (of the male gender) " it's a woman, for there are twelve of them."

It is a Mistaken Notion to suppose that phrenology is in any way opposed to Christianity. It is rather the handmaid of religion, and by it many theological difficulties can be explained.

It is a Mistaken Notion to suppose that because some preachers and professors of religion are inconsistent, that there are no sincere Christians, or that religion is undesirable. A gold sovereign is not less genuine because of spurious coin. If you do not worship the true God, you will worship a false one of your own making.

It is a Mistaken Notion to send children to school too early —*i.e.*, before their brains are sufficiently developed to enable them to study without injury to its delicate nervous structure. The early education of children should be applied chiefly to the faculties of observation. The child should be taught to observe correctly ; to notice the forms, sizes, proportions, colours and numbers of things ; to live in the real world and to understand objects by which he is surrounded ; and not too much in the world of books. The education of the propensities should also be commenced at an early age. All this is now strangely neglected, whilst an unnatural premature forcing of the mind of the child is often induced, and perverted precocity may ensue. The reason we have so many careless, indolent, and unpractical youths is, because the faculties which nature ordained to come into activity first, have remained untrained ; and the thinking and reasoning powers have been developed at the expense of the observing, knowing, and practical faculties.

It is a Mistaken Notion to teach young people creeds and catechisms except as relating to such essentials as are universally taught by all sections of the Christian Church. Else, each of the different creeds, being set forth as exact interpretations of Scripture, though materially differing from each other, will confuse the tender minds of the young children, and become a hindrance to their acceptance of truth when they arrive at maturity. Before a child is ten years old he may have been so trained in prejudices that no amount of subsequent intellectual culture will remedy.

All abstract notions should be kept far away from young children. There were signs of great precocity in George Combe when, at the age of six years, he began considering

by what methods God conducted the moral government of the world.

"You see, Mamma, it depends upon you, whether my children know anything or not," exclaimed a little eight-year-old philosopher, after plying her mother with questions which she had been puzzled to answer. "What I know, you must tell me, and what my children know, I must tell them. Don't you see?"

Yes, the mother did see, and though at first much inclined to laugh at the ridiculousness of the thought, she experienced far deeper feelings than amusement when she realized the full import of her daughter's words, and saw the extent of her own responsibility.

It is a Mistaken Notion to suppose any given age can be fixed at which a child should first go to school. A child whose brain is about evenly balanced, and who has a strong body, with ample health and vitality, may usually go to school from about the age of seven, or even a little earlier. But where the brain is large, and the vital organs mostly weak, these latter should be strengthened before the mental powers have any strain whatever put upon them. Whether a child should attend a public or a private school, or have private tuition at home, largely depends upon his nature and constitution.

It is a Mistaken Notion to suppose that the same kind of food and clothing, the same amount of sleep, exercise, or education, punishment or rewards, are necessary or good for all children alike. The child's nature should be studied. Phrenology and physiology are special aids to this study.

It is a Mistaken Notion to think of placing any boy or girl in a school without first knowing something of the character and capabilities of the principal, and of the modes of education and management adopted by him.

It is a Mistaken Notion to place the youth of either sex in any occupation for which they are not mentally and physically qualified.

It is a Mistaken Notion to endeavour to keep boys and girls from associating with each other. They should attend the same school, work in the same room (except when they take special subjects), play with each other, and eat and drink together. Such general intercourse would prevent early partialities being shown. The society of either sex would be pleasant to the other; whilst the early desire to love one exclusively would be less, all would be able to pursue their studies with greater ease and success, and a better disposition

would be developed than is the case when each sex is educated separately and kept so much apart.

It is a Mistaken Notion to suppose that young girls of fifteen and sixteen who appear reserved and reticent, and who do not care for society, have little physical love and affection. It is very frequently their strong sexual nature that makes them shy, and appear indifferent to the opposite sex ; whilst the genial freedom and familiarity of others are usually the result of a large faculty of friendship, with the vital and mental temperaments leading.

It is a Mistaken Notion to suppose that a young girl is going to wait for the sanction and suggestion of her mother before she begins to love. Of all the emotions love is one of the earliest to be developed, and when abnormally excited is probably the most difficult to control. Love is the sweetest, richest, and most precious of all nature's gifts. The proper education of this faculty has been most miserably neglected. False modesty and affectation prevent necessary conversations upon the subject. Even between mother and daughter, or father and son, the subject is seldom mentioned ; whilst all the time love's fire is burning. Love is of five kinds, viz. :—sexual, social, intellectual, moral, and spiritual. The spiritual is the highest.

It is a Mistaken Notion to suppose because a person is outspoken and appears to tell out the whole of his mind that he really does so. Large language will sometimes make a person talkative, whilst at the same time he may be specially secretive, deceitful, and cunning.

It is a Mistaken Notion to suppose that God is a Being with human passions. Such notions belong to the dark ages, and not to Christianity. "God is a Spirit," whose wisdom, goodness, and justice, as necessary laws of His Eternal Being, with balance of power, and harmony of operation, are, in many ways, inscrutable, and infinitely transcend all human conception.

It is a Mistaken Notion to suppose that the soul of man is not immortal, that at the death of the body his soul will not continue its separate existence. Over 3,000 years ago the question was asked,—"If a man die, shall he live again ?" The answer to this question is made plain by the resurrection of our Lord Jesus Christ. The eternal life of the soul was one of the chief themes of the Apostle Paul. Phrenological doctrine unmistakably teaches that whilst the brain is most essentially the medium for mental manifestation in this world, the essence of mind—whether we call it spirit or soul—is immortal.

It is a Mistaken Notion to suppose that you may treat with

indifference the questions here suggested without doing a wrong to yourself, and to those with whom you are intimately related. They each refer to matters of the supremest importance.

It is a Mistaken Notion to suppose that if you give careful and diligent attention to the development of the mental and physical powers, they will not become very considerably increased in proportion, in strength, and activity. They will be. The fact may be explained and demonstrated according to a physiological law.

A. HUBERT.

BRITISH PHRENOLOGICAL ASSOCIATION.

UNFORTUNATELY we were not able to give a report of the September meeting of the Association, none having come to hand when we went to press. It should be said that Mr. R. Hall read a carefully-prepared paper on the "Measurement of the Skull." We were not able to hear it, and so cannot speak of its merits. It was too long to publish as it stood : indeed, it could not be so published, because it was written in short-hand. But we hope that Mr. Hall will be induced to write out a synopsis of his paper for publication in this Magazine. We want our knowledge enlarged in regard to measurement.

On the 7th ult., Mr. Donovan read a paper before the Association on "Phrenology and Socialism." Mr. Webb presided over the meeting, which, at Mr. Donovan's request, took place in the Memorial Hall. The audience was fair, considering the night was exceedingly inclement. There was some discussion after the lecture, in which Miss Oppenheim, Mr. Morrell, Mr. Story, the Chairman, and several strangers took part. Mr. Donovan's reply brought the proceedings to a close. Mr. Donovan has handed us the MS. of his lecture, which we hope to be able to publish in a forthcoming issue of the MAGAZINE. The next meeting of the Association takes place on November 4th, when Mr. Hollander holds forth on the "Objectors to Phrenology."

THE monthly meeting of The Fowler Institute was held in the Lecture Room, on Monday Evening, October 13th, when Miss Maxwell read an interesting and highly-appreciated paper on "Enthusiasm." We hope to publish this paper in the MAGAZINE next month.

Notes and News of the Month.

MR. T. TIMSON, of Leicester, desires us to note that he has removed to more commodious premises at No. 4, Wharf Street. Another communication of his is unavoidably held over till next month.

WE are now booking orders for the "Phrenological Annual" for 1891, edited by Professor James Coates, author of "How to read Heads." This promises to be an extra interesting number, and will be ready about the end of this month, price 6d., post free. Order at once from the office of this MAGAZINE.

SUBSCRIPTION OF THE PHRENOLOGICAL MAGAZINE FOR 1891 TO BE REDUCED.—Having received several complaints from country readers of their inability to get the MAGAZINE through their book-sellers, the publisher has decided to reduce the subscription price to 6/- per year (in advance), post free, colonies 9/-, and hopes that those experiencing any difficulty in getting a copy monthly will order direct from this office. Now is a good time to subscribe for 1891, a new volume commencing with January next.

IN response to many enquiries from the provinces, Mr. Fowler has decided to give a thorough course of instruction in phrenology, physiology, and kindred subjects, through the post. Hence persons residing at a distance who are unable to attend the Fowler Institute, London, can have a course of instruction by letter, and pupils at the end of the year, if they choose, can come up to the examination in London, and receive certificate or diploma according to proficiency. Owing to the extra amount of correspondence this will make, only a limited number of pupils can be received. Persons desirous of joining this new branch are requested to communicate early with the Secretary of the Fowler Institute, Ludgate Circus, London.

What Phrenologists are Doing.

[We shall be pleased to receive for insertion under this heading, reports of lectures, meetings, or engagements of phrenologists. In sending notices correspondents will oblige by enclosing their communications in an envelope and addressing them to the office of publication of the PHRENOLOGICAL MAGAZINE. Newspaper cuttings pasted on post-cards are an infringement of postal rules and subject to a fine.]

MR. RICHARDS GRAY, of phrenological renown, gave a lecture on Monday evening at the Congregational Schoolroom, Tontine Street,

on "Eccentricities." There was a good audience, and the lecture, which was treated from a phrenological point of view, was much enjoyed.—*Folkestone Argus*, September 20.

PROF. E. MORRELL, a well-known Leicester phrenologist, intends holding classes during the winter months, and has removed to larger premises—viz., 1 and 2, Haymarket—for that purpose. A large collection of phrenological works are always on sale at this address. Prof. Morrell is an earnest worker for the science, and we hope to have his name among the members of the Fowler Institute within a few days.

BRITISH WOMEN'S TEMPERANCE ASSOCIATION.—A social meeting of nurses was held under the auspices of the above association at Morley Rooms, John Street. The meeting was well attended, representatives being present from all the London hospitals. The chair was taken by Mrs. J. C. Mackenzie, who spoke a few earnest words. Miss J. A. Fowler, hon. sec., followed with an energetic speech on the physical aspect of the question.—*Daily News*, Oct. 2nd.

HANWELL WESLEYAN CHAPEL.—On Monday last, a lecture was delivered in the above-named place on "Phrenology," by Mr. T. Roe, of Banbury. The lecture, which was of an interesting and instructive character, was given in a very able and intelligent manner, and proved the truth of the science by the lecturer's skill in the delineation of the characters of two individuals, which were announced by the subjects themselves to be true.—*Banbury Advertiser*, Sept. 25.

MANY of our readers who remember the visits of the eminent phrenologist, Professor J. Millott Severn, to Bournemouth in 1888 and 1889, will be pleased to learn that he is making a short stay at 33, Old Christchurch Road, just opposite the Albert Road entrance. In the brief time he has been here a number of his old patrons have found him out, and introduced their friends for his examination. Those who doubt that phrenology is an absolute science should visit Mr. Severn, and we venture to say that the most sceptical will be surprised at having his character so plainly read out to himself, not overdrawn or understated, but honestly pourtrayed, the faults as well as the capacities. On the subject of selecting a pursuit for the after life of the young, an hour with Mr. Severn would not be thrown away by the family man. This is an important matter, for the choice of a wrong course in business affects the whole history. To find out special aptitudes is one of Mr. Severn's strong features.—*Bournemouth Guardian*, September 13.

Correspondence.

THE PSYCHOLOGY OF PHRENOLOGY.

To the Editor of the PHRENOLOGICAL MAGAZINE.

We are always indebted to Mr. Morgan when he writes and speaks on phrenology. He has generally something original and interesting to say. In his recent contribution on the above, he has added nothing to our knowledge; perhaps we must thank him for stimulating thought, and provoking enquiry. There remains so much room for improvement in phrenological methods, philosophy, or deductions, past and present. We suffer just as much from the exactness and care of the earlier phrenologists as we do from the diffuseness and generalities of later writers.

The difficulty lies here—in the erroneous supposition that the particular cerebral area defined as the organ of individuality is the organ of one faculty of the mind. The convoluted and involuted anterior mass in both hemispheres of the brain, covered by such an extensive area of the skull, can scarcely be one organ having one function—and that function an impossible one, according to Mr. Morgan, as opposed to Spurzheim, Combe, Donovan, the Fowlers, and Sizer.

In examining heads, I note that those persons favourably developed in this particular region "enjoy conscious perception:" they love to see, take pleasure in seeing, just as the upper part of inhabitiveness appears to give one the desire for pleasure in "concentrating attention;" in what particular direction will depend, as Mr. Morgan well knows, on "other developments," to use a favourite cant phrase of phrenologists. It is quite conceivable that individuality is primarily the organ whose function is the desire for, and pleasure in, conscious perception of physical objects—existences as mere existences. I can conceive of seeing an object—a horse, for instance—without being immediately struck with all its points of configuration—form, size, colour, and what not. In childhood especially it is so. I am inclined to think that the areas assigned to certain protuberances, points of ossification in frontal and parietal bones, occiput, or other head land-marks, and between them, may have other functions than those primarily assigned to them by Gall and Spurzheim. At the same time, it is abundantly clear that the leading psychological characteristics have, as far as ordinary language in fairish composition can convey, been right enough.

A person with individuality large will, walking along a road, notice, observe, and be attracted by the existence of things, objects, which another person, smaller in individuality, will not perceive, although endowed with larger reasoning faculties, and, possibly, larger organs of form, size, colour, etc.

Each organ is the centre of a certain, and always the same, function, whatever that function may be. It is admitted that for the manifestation of each faculty of the mind a certain area of cortical or cerebral sub-

stance is necessary. Granting this is one thing ; but to assume that individuality, or any other so-called phrenological organ, has only one function, is another. How limited would the faculties, or primary powers of the human mind be, if limited to the so-called areas of phrenology, old or recent. I am humbly inclined to think that not only the mind manifests through the brain, but through the body as a whole. This is, I admit, a little apart. I am strongly impressed by observation to conclude the cerebral organs of Gall are, in many instances, composite : made up, in fact, of minor organs or centres of approximate or similar functions, and that the so-called organ of individuality is a case in point. The divisions and sub-divisions on the Fowler bust may not be scientifically correct, but so far it is a recognition of the composite character of the larger organs of Gall and Spurzheim, and an attempt at localisation and definition which have not, so far as I know, been attempted by any other phrenologists, living or dead.

The auditory nerve, for instance, is not one nerve, but a bundle, each nerve having its own especial work or function. This is readily illustrated without the unnecessary parade of anatomical or physiological knowledge, now so fashionable in some writers, in observing deaf persons, who can hear certain sounds, and not others, and *vice versa*.

If we admit individuality to be a single organ with only one function, it would be to assert that the craniological topography which assigns such a space on the skull to this particular organ, is much more reliable as a guide than the hints we get from the structure of the brain underneath, which we see is so convoluted and complex in character.

What we want is less destructive criticism and more constructive information. Meanwhile we must plod on and observe. So far we see individuality to be the window of the perceptives, the avenue of conscious perception. Where it is large there is an insatiable desire to see, to observe, and enjoy the perception, just as continuity gives the desire to concentrate attention, and apply energy definitely ; the "how" comes in conjunction with other faculties. Dr. Donovan may claim too much for individuality, and Spurzheim, Combe, and others who follow an abstract impossibility—(not much for one of the foremost founders of phrenology)—and I, may not understand it all. If so, the majority of professional phrenologists sail in the same boat. What is the function then of this particular area—the psychological correlative of location, size, power, and activity? Gall, Spurzheim, Combe, Donovan, Fowler, and Sizer have so far failed—at least, they have in the estimation of Mr. Morgan, not been able to clearly define what they mean, or, worse still, had no definite ideas to define. The indictment is serious. Still, if phrenology is benefited, and the psychology of phrenology rescued from its present unhappy and crude condition, what does it matter ? For myself, I do not know ; I think many things. Hitherto I have been in phrenology an humble disciple of Combe. In psychology I have been esteemed "the orthodox quid"

slightly touched. I have no Gamaliel. Perhaps Mr. Morgan will add to his crushing criticism some interesting and constructive information. That is what we most need.

Admitting the "centre of energy" to have been localised by Mr. Morgan or others beyond the shadow of a doubt, is this a sufficient reason for doubting the existence of "conjugality?" Are motor areas to be confounded with their psychic correlatives? Is it not easily observable, some men and women are more conjugal, more organic, than others? and is it not observable that the phrenological contour, as well as physiognomic aspect, testify to the possession of greater conjugality in one individual than another? Is phrenology, old or new, so perfect or so complete that phrenologists old in the work, or comparatively but recent aspirants and students, can afford to dictate what is and what is not? Would it not be better for each student of human nature to record his or her observations, and add to them his or her natural deductions and inferences for the benefit of others, leaving thus something to growth of science, and of course to the observation and judgment of others?

J. W. COATES.

MR. DAWSON AND PHRENOLOGY.

To the Editor of the PHRENOLOGICAL MAGAZINE.

SIR,—In this month's issue of the "Young Man," the Rev. W. J. Dawson says he has received a long and invertebrate defence of phrenology from one of its professors; but if it is such an invertebrate production why does he refuse to publish it?

The correspondent referred to (I learn from the "Young Man"), says he cannot find the word "vitiativeness" in any dictionary. The reverend editor says the word referred to is a phrenological term, evidently not observing the difference between "vitiativeness" and "vitativeness." This, you see, is not by any means complimentary to his accuracy as an observer or his knowledge of phrenological terms.

Further on he says, "It is a little hard on a man, whose head he has never seen, and of whose history he is profoundly ignorant, for the Professor to say that I am totally unacquainted with the science," etc. Now there is no hardship in this whatever; evidently he does not believe that "the tree is known by its fruit," or he would never have committed to paper such a shallow-brained complaint. Phrenology does not tell you what you have learned, but what you can learn, etc., consistent with sound physical and mental health.

Our reverend antagonist has indulged in unjust and vague assertions regarding the truthfulness and utility of phrenology, and that without the smallest iota of evidence; consequently he must expect criticism from those who know the subject better; in fact, he condemns himself. He says, "As a matter of fact, I did once believe it was a science, and attempted to study it." Now there is a big difference between attempting to study and actually studying. Here our reverend

friend admits unconsciously his superficial acquaintance with the subject, hence the untenableness of his position.

Again, he states, "As an honest man I do not believe in phrenology," and almost in the same breath says, "The further inspection of the skulls of great poets and statesmen convinces us that our skulls are as good as theirs." Now what I want to know is, by what process of reasoning the reverend gentleman arrives at the above conclusion. Seeing that no two skulls are exactly alike, wherein does the similarity of equality exist? Is it in the length, breadth, etc., of the parietal, frontal, temporal, or occipital bones, depth of diploë between the bony plates, or what? How does he compare the skulls of the living with those of the defunct?

We must not pass over his precocious youth. He says, "I knew a youth who had studied the phrenological developments of Byron so closely that he was certain his own were identical. He even shaved the hair round his temples, because he wanted his forehead to have a due poetic loftiness and breadth, etc." Here you see the youth considered the cutting of his hair at a particular part of the head essentially necessary to his becoming a second edition of Byron (in calf.) No mention of the organic quality of the brain or corporeal conditions, etc.; and yet our veracious friend says this youth studied Byron's phrenological developments "so closely." The mistake that youth made was in shaving the hair round the temples. He should have shaved his abnormally developed approbateness and self-esteem, to keep them cool; and allowed the hair to grow round the temples, so as to keep all the possible warmth there, and thereby help to mature and strengthen his poor weak intellect.

Then again our reverend friend says he "never knew a man get a really useful hint as to character or action from phrenology" (assertion of course proves nothing). Against the above statement I put the advice of the late Rev. Henry Ward Beecher, which is like contrasting the electric light to a farthing "dip" (candle). Speaking from the pulpit the Rev. H. W. Beecher says, "If a man wishes to know practically what he is made up of, if a man wishes a knowledge of human nature for definite practical purposes, there is no system which will aid him in acquiring that knowledge like phrenology." Of course I don't expect this will have much influence over a gentleman whose vanity leads him to assert that his skull or knowledge-box is equal to that of our great poets and statesmen.

Our reverend logician concludes his article by quoting Carlyle, "Shut your Byron and open your Goethe," and then paraphrases it thus, "Shut your phrenology and open your physiology." Now this conclusively proves that the Rev. W. J. Dawson is either very ignorant of phrenology, or wilfully misrepresents it. Phrenology and physiology are co-related, consequently you cannot study phrenology without studying physiology.

Tusting I have not trespassed too much on your valuable space,
Yours respectfully,

P. K. ZYTO.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

ALFRED has a predominance of the mental and motive temperaments, is constitutionally industrious and active. He either has something to learn or to do. The more he knows, the more anxious he is to know. The predominant powers intellectually are of a practical nature. His great desire appears to be to want to know and understand everything. He is a man of method and system; is successful in planning, and carrying into execution his plans; can adapt himself to a business that requires considerable thought and judgment. He has a favourable amount of ingenuity and power to contrive ways and means. He works well by the eye, as a mechanic or artist; has more than average taste as applied to art or nature. He possesses a high order of enterprise, is disposed to go forward and open up new ground if necessary. His moral brain is fully represented, and whether he makes any particular pretensions to creed or not, he has a high tone of mind, and his conduct is much regulated by his moral principles. He possesses sufficient energy to clear his way, and enough of circumspection to guard him on his way. When he clearly sees his duty he goes ahead in spite of all impediments. Generally he is quite disposed to mind his own business, but has moral courage enough to fight the battles of right and justice, for others if necessary; he requires the force of circumstances to call him out so as to appear to a good advantage.

ALLEGRETTO.—You have a favourable organization to enjoy life, and there is every prospect of your living to be old. You possess a high degree of the vital and mental temperaments, hence you enjoy or suffer in a very positive manner. So long as you take proper care of yourself and have health, you will have more pleasure in living than the majority of men. But avoid extremes of nervous action, and keep from all kinds of excesses. You have a favourably-balanced head, and there is harmony between your face and your head. You have a fully-developed intellect, with fair perceptive power, but a higher degree of the reasoning faculties. You are quite original, have a mind of your own, and are willing to take the responsibilities of your own life upon yourself. You are generally cautious, watchful, and keep your affairs under your own control. You are highly am-

bitious, very sensitive to praise, and powerfully stimulated in whatever you do before the public to so excel as to secure praise rather than criticism. If there is anything important involved you are very firm and decided ; but your common disposition is a pliable one, and you adapt yourself to circumstances. Your sense of justice has a regulating influence on your character, while your sympathies sometimes get the advantage of you. You are decidedly emotional, fond of the new, novel, marvellous and mysterious ; your spiritual nature has a powerful influence on your mind ; you almost excel yourself, and do better than you could reasonably expect ; your mind is full ; you have as much to say when you stop as when you begin. Ideas, thoughts and feelings multiply upon your mind. You are imitative ; can suit yourself to a great variety of circumstances ; can mimic and imitate and act out things, and give full relief to your thoughts. You are decidedly intuitive in discerning character, motives and truths. You are youthful, bland, and capable of infusing your mind into the minds of others. You have considerable magnetism, especially in putting a spell upon an audience. You have a great amount of taste and scope of mind, and are fond of all kinds of extravagances or uncommon conditions of things in life. You are a great talker, have a favourable command of language, and can tell what you know to a good advantage. You are not destructive, and have not a hard, harsh mind, but are rather too tender to "rough it" in the world generally. You are well-adapted to your profession.

J. S. (Antrim).—You are so favourably balanced as to take life uniformly. You possess balance of power and can generally control yourself ; but you do not give way to uncontrolled feelings and sentiments under ordinary circumstances. You have the kind of balance of power that makes you know what you are going to say and do, and generally think and plan ahead. You have a strong vital, animal nature, which gives you an abundance of feeling and emotion to be expended somehow. You have also a good osseous system, giving you a strong frame and a favourable organization to put forth strength and endure continuous labour. Your mental temperament is favourably represented, but not so strong as to make you impulsive or excitable. You belong to this world. You enjoy yourself while you are here, and are trying to make the most of what you have and are. You work with your whole body and mind together, or else you refuse and take things easily. You require considerable excitement to call you out fully. The chances are favourable to your lasting into old age, and if you are fortunate in your life and habits you will enjoy more of life than persons usually do. You are adapted to a business that requires system and forethought. You seldom have occasion to do your work again, because you do not often make mistakes. Order is one of the large developments of your mind. This, together with your planning talent, helps you to lay out your work systematically. You are not easily carried away by your imagination ; but you possess more than an average amount of sentimental, moral feeling, and

desire to improve and perfect yourself. You take life easily, first because you have a balanced organization, and secondly because you are not selfish or hoarding in disposition. On the contrary, you are comparatively frank and candid, and consider the wants of others as well as your own. You should be known for your firmness, stability of purpose, general consistency of character and life, and for your moral ambition. You are social, friendly and domestic in disposition, and can adapt yourself to circumstances. You are adapted to the family, home and domestic circle.

A. F. (Thrapstone).—You have a mind capable of high culture. You require a little more discipline than many in order to get the best control of yourself, for your imagination is strong, and you take rather extravagant views of things. You are full of life and emotion ; are fond of fun and poetry, and have more than average scope of mind. You are adapted to a professional life ; could make a good speaker, and entertain as well as instruct an audience. You have the power to imitate. You are better adapted to a profession than to physical labour, for you are not specially fond of doing rough work, or to a laborious life. You might engage in trade and make money ; but this would not give you so much satisfaction as to study and take a public position. You are more reflective than perceptive in the operation of your intellect ; are more philosophical than scientific in your turn of mind. Your lady friend has a combination of the vital and mental temperaments. When excited by favourable influences, she is rather brilliant, and appears to a good advantage ; when not particularly animated she does not show off well. She will improve greatly as she grows older, more especially if she gets into society and takes an interest in what is going on. She has a favourable capacity for scholarship, and will commit to memory and retain knowledge easily. Among friends she is a good talker. She could make a good book-keeper or secretary. She has gifts as a teacher, but is much affected by surroundings, hence needs to be with lively, wide-awake people to be properly stimulated to action. She needs to live an active life in order to prevent the accumulation of too much flesh. She is favourably adapted to the position of a wife and mother, and will make friends and not enemies. She will exert a good influence over you, and set you an example that it would be well for you to follow. You need restraining influences put upon your imagination, and she will need stimulating from a lively, wide-awake companion. You can be so adapted as to make a happy couple.

J. V. (Holloway).—Your mind develops rather slowly, but uniformly. You are not one of the kind to be prematurely bright and showy. You gather your forces gradually ; you mature a subject before expressing it. You have patience to finish what you begin. You prefer to be in a business of your own, and to take the responsibilities of your own actions on yourself. You are not necessarily proud and

haughty, but are more known for your manly disposition than for mere ambition to appear well and attract attention. Your moral brain has a modifying influence over your whole character, and stimulates you to do your best, and gain an influence over others. You are respectful, mindful of the wants of others, and cannot very well gratify your own mind at the expense of others. You would prefer to share your dinner with a person who had none, than to eat it all yourself. You are a man of method and system. You lay out work before you begin operations, and seldom make mistakes on this account. You are intuitive in your perception of truth and character; are disposed to culminate your thoughts, and bring things to bear in a definite form. You are more given to thought than to observation, but you observe knowingly or earnestly, and are impressed with reference to what you see. You have a fair amount of energy and force, but generally keep within bounds with reference to property and labour, for you are not so greedy and selfish as to wish to monopolise. You should be known for your patience, thoroughness, perseverance, system, and for your practical available intellect. You have not much ready wit, imagination, or undue force of mind, hence are not often in trouble, and do not require the aid of others to keep you on the track.

F. G. S. (Brighton).—You have a critical, discriminating, intuitive mind. You do not give yourself long time to think on any subject, for your mind culminates quickly. You are, in fact, almost too intuitive to have a well-disciplined mind from continued thought. You have opinions of your own, are fond of teaching or imparting information to others. You could have succeeded in entertaining and instructing an audience. Your head is high, rather than broad; you are more known for sentiment, sympathy, and general moral aspirations than for selfishness, force, cunning, or worldly wisdom. Your cautiousness takes the form of prudence rather than of fear and timidity, but you are liable to be too particular, for you are quite nervous, and very exacting in having everything done for you. You could do something else better than devote yourself simply to trading and money-making; could succeed in chemistry, or mental philosophy, in medicine, in diagnosing disease, or in a moral sphere. Strive to be as practical as possible, and check extravagant imagination. Your spiritual nature requires regulating, for you delight to think on subjects of an immaterial nature, and may get into the habit of theorising too much, and of not paying sufficient attention to ordinary duties. You are strongly inclined to be absent-minded. Your memory of events is not very good; consequently you do not become so easily entertained with news and the doings of the day.

A NEW EDITION of "Synopsis of Phrenology and Symbolical Head," by L. N. Fowler, has just been printed. This has always been a popular leaflet as a guide to beginners, and is often called the A B C of phrenology.

THE Phrenological Magazine.

DECEMBER, 1890.

MR. ALDERMAN SAVORY,

THE RIGHT HON. THE LORD MAYOR OF LONDON.

HIS gentleman has a high-toned organization, is very susceptible to mental impressions, and has more than ordinary scope of mind and disposition to do everything on a large scale. He has superior imagination and great taste, has versatility of talent, and is equal to almost any task which a variety of kinds of business would require him to do. He should be very distinctly interested in works of art, in making improvements, in showing skill and taste in everything he does. He differs from many in having a higher cast of mind, and in being more fond of the perfect and the artistic. His head is broad, which indicates conservative power, industry, and economy, and also gives him an eye to business. His forehead is fully developed, more especially so in the reasoning, thinking group, which gives him judgment and ability to plan and devise ways and means. He keeps his own counsels, and looks far ahead and transacts business with reference to the remote future as well as to present profit. He should be characterized for order, method and system, as well as taste and sense of refinement. He talks advisedly, and wastes no words, but still has the qualities for an orator, when he chooses to give expression to his mind. He is very careful to deal justly, and do what he agrees to do ; yet he would seldom agree to do a thing without first understanding the conditions. He knows how to use his powers to the best advantage and to present his side of the question in an agreeable manner. He is better adapted to the work of the brain than to physical labour ; to set others to work than to labour himself. His moral brain is particularly well developed, and must have a powerful influence on his whole character and life. He could not well give himself up to a base life, because it would so outrage his

moral feelings. All the moral organs appear to be favourably or largely developed. Veneration is very prominent, giving him modesty and feelings of respect for the superiority of other people, and inclining him to obey the moral laws. He is naturally hopeful, sanguine, and enterprising. This feature of his mind may take a moral as well as a business direction. He is quite alive to new ideas and is decidedly emotional, if not enthusiastic. His mind is open to conviction. He is versatile in talent, somewhat inventive, seldom at a loss to accomplish his ends. He favourably combines energy and prudence, having a broad head in the base of the brain, joined to large cautiousness and conscientiousness. He will not contradict himself or be liable to go to extremes, for he has a favourable balance both of body and mind. He is able to resist powerful temptations and regulate himself. His intellectual powers are of the available type. He will not be so liable to yield to his imagination as to detract from his intellectual force. He understands men and human nature generally, and knows how to adapt himself to those with whom he comes in contact. The spiritual tendency of his mind is far superior to that of most men, for, although he may devote himself to business, yet, according to his organization, he has strong moral and spiritual tendencies. He appears to resemble the organization of his mother more than his father.

L. N. FOWLER.

The descent of Mr. Savory bears a good ancient record.

He comes from a Huguenot family, and is descended from King Edward I. He was first educated under private tuition, and afterwards at Harrow under Dr. Vaughan and Dr. Butler, and later joined his father in a business which is now carried on as the Goldsmith's Alliance. In 1882 Mr. Savory was elected Sheriff of London and Middlesex, and in September, 1883, on the retirement of Sir Sydney Waterlow, he was unanimously chosen Alderman.

Into commercial life he has had a large insight. He has taken a deep interest in educational matters, having been a member of the School Board for London, Almoner of Christ's Hospital, Governor of the Royal Holloway College, Chairman of the Princess Helena College, and Governor of the United Westminster Schools. In addition he was Governor of the Royal Hospital and of Queen Anne's Bounty. In parish work he was Churchwarden for many years at St. Mary, Woolnoth, Lombard Street, and of Holy Trinity, Sunningdale, where he resided and passed many years of his life; and having been

specially licensed by the late Bishop of Oxford as a lay reader, he has for the last seven years conducted a Sunday evening service in the mission church of his own parish, and for twenty-five years has been a constant Sunday school teacher.

All may indeed rejoice that the citizens of London are so fortunate in having for their Lord Mayor a man of such an exceptional character and career, and capable of filling the position in the ablest possible way.

THE SHEPHERD'S SABBATH SONG.

This is the day of rest !
 I'm on a spreading plane so lowly,
 And distant sounds the church bell holy ;
 Now still is east and west.

To pray I kneel me here ;
 O sacred dread ! O pleasing awe !
 As unseen round me dear ones draw,
 And kneel and pray a-near.

The heavens east and west,
 So solemn are and clear and free,
 They seem as though they'd ope to me.
 This is the day of rest.

UHLAND.

A R E V I E W .

WHAT shall we say of the year ? Has it, on the whole, been propitious to phrenology, or the reverse ? Have the signs been that it is making headway, or that it has had—what it has been having so long—a knock-down blow ? According to one who has been inside the ring, it does not appear so. Judged by the number who seem to be swarming into phrenology as a profession, it seems to be thriving. Some of those in the swarm do not appear to be altogether to the credit of phrenology. But that is another matter. Judged also by the noise that has been made over what some would call its dead carcase, phrenology would appear to be making headway.

The parsons and the doctors, as usual, appear to have been doing us good service—*vide* the dust that has been raised by the doctors in their respective branches, namely, Wilson and Dawson. They are both worthy sons of ignorance and prejudice. Both attacked phrenology on those grounds, and the readers of the MAGAZINE have seen some of the results thereof.

Mr. Webb tackled the doctor in his own stronghold, and vanquished him—except, of course in his own conceit. The doctor evidently did not expect to be taken to task so publicly. He made certain statements before a class of young men—or was it a club?—and surprised them with his cleverness. Brought on to more public ground, he repeated his views, and made certain assertions which—in a man professing to be scientific—were worse than stupid. Brought to book by Mr. Webb, and given certain nuts to crack, he preferred to edge. This is always the case with these gentry. Their aim is not truth, but to uphold a system.

It is the same with Mr. Dawson, right Reverend. But no man is truly reverend who shuns the truth, or who condemns a thing without having examined it thoroughly. This is what he has done with phrenology. This is a system founded by truth-loving men; a system based upon long years of experience; a system of enormous importance to man; and yet this so-called “reverend” man condemned it ignorantly, warned young men against it ignorantly, defended his opinion ignorantly. And he professes to be a man who guides people into the ways of God. Shame on him! If phrenology is true, it is true because God made it so; and yet he condemns it unexamined.

But it will go on! It is ever going on. And phrenology, though spurned by Wilson and Dawson, and other like *unknowing* men, will go on spreading and converting the world to its truth.

Sometimes I have thought, Is it worth while to take any notice of these men? But perhaps it is well to answer them. It keeps unsheathed the pens of so many, gives them practice, too, and the more they practice defending phrenology, the better for all. So, perhaps, it is well to give these opponents a fall on every occasion, and not always treat them with the contempt their ignorance deserves.

By the way, Mr. Dawson thinks phrenology makes young men conceited. If he will observe carefully, he will find that there is nothing like ignorance for making men, young and old, conceited. This, I fear, is why so many parsons are conceited. It is very lamentable that it is so, but it is.

We have heard much lately of the Old and the Modern Phrenology ; nor can I think it altogether a healthy sign. There seems to be an attempt in it to make capital, by claiming a distinction where there is no difference. Nor is any good to be obtained by running down honoured English names in order to lift up Continental ones. Combe did an inestimable service to phrenology all over the world, and phrenologists ought to unite to honour him.

In so far as what is called the "Modern" phrenology coincides with the effort to make it understood in a more scientific method, it is good, and nothing can be said against it. But do not let us confound words with things, and think we are more scientific because we use harder words. As to the scientific study of phrenology, this Magazine has urged the need of it from the very first ; and we boldly take credit to ourselves for the better spirit which has come over the study of the science in late years. Some are apt to overlook this fact, and to attribute the improved state of things to individuals, or to the British Phrenological Association ; but let those who have any doubt on the matter look at the first volume of the MAGAZINE, published just ten years ago, and they will find in succinct form much of what has been sent forth with much flourish of trumpets during the past year.

I say this, because it is well for us to see where we are, and to give honour where honour is due. And honour is due, first and foremost, to those who have borne the burden and had the conduct of the PHRENOLOGICAL MAGAZINE.

As I have already said, it is ten years since the first volume of the MAGAZINE was published ; and from that time to this, the MAGAZINE has been sending to all quarters of the globe a body of phrenological literature which will compare with anything published during a like period at any time since the discovery of the science. Ten volumes have been published ; and to those who recollect the state of phrenology when it was started, how few there were who could write a passable article on phrenology, and how little instructed the general public were on the subject, it is a matter of no small gratification that in ten years such a change has been effected, and largely by its instrumentality and influence. But this has not been done without immense labour and cost. I, who have been behind the scenes all the time, know better than most ; and I can say that to-day phrenologists owe Mr. Fowler something more than a debt of gratitude for what he has done in this respect. They owe him so much, that I have decided to suggest that a fund of £250 should be raised and presented to Mr. Fowler by way of recognition of what

he has done for phrenology by the publication of the MAGAZINE. I do not think it would be difficult for phrenologists to raise this amount ; and in presenting it to Mr. Fowler, I would couple with it a suggestion that for it he should set apart a number of sets of the MAGAZINE to be given to public libraries whenever the authorities thereof would accept them. There are now being opened free public libraries in nearly all the London districts ; and it would be well to get phrenological literature into them whenever possible.

Furthermore, I would suggest that the ten or eleven pounds which were subscribed for a bust of Mr. Fowler should be made a nucleus of this fund. That sum is now going abegging, and might in this way be turned to some use—sent about the world, like the Apostles, doing good, in short.

Such is my suggestion, crudely and in brief. Let those who approve of it communicate with me, and if there should be anything like a hearty response, I will return to the subject next month.

In conclusion, let me say that I have not had a word with Mr. Fowler on this subject. It is entirely my own idea, and he will not see what I have suggested till he sees it in print.

In presenting a review of phrenological work attempted and done, special mention must be made of the Fowler Institute, founded in March last. This Institute has steadily increased in membership and influence. Its projector, Mr. L. N. Fowler, had but one wish at heart, viz., to put phrenology and physiology before the public in a practical form by means of lectures, classes, and the spread of literature on these and kindred subjects. A list of lectures, etc., given, will indicate what has been done.

Since March last there have been forty-nine lectures given by Mr. Fowler, Miss Jessie Fowler, Dr. Allinson, Mr. Bernard Hollander, and others. Thirty-two lessons have been given to a class in phrenology, physiology, and calisthenics, and other work done.

As to the Phrenological Association, it has been going through a crisis, or something of the nature of a crisis, and will be all the stronger when it has got through with it. It is making steady progress, however, and must in the end come out a strong institution. When the Council have got through with the revision of the rules, they ought to take in hand another task, and that is, to try to find a way of working with the Fowler Institute. It can be done, so that the two bodies may mutually aid and support each other. It is for them to find out the way.

A. T. STORY.

THE EQUALITY OF BRAIN POWER IN MAN AND
WOMAN CONSIDERED ;
WITH THE LATEST SCIENTIFIC DISCOVERIES ON
“ WOMAN’S SKULL CAPACITY.” *

IN the University of London this year there were no Doctors of Science ; several candidates offered themselves, but all failed. The result, it was thought, was due to the new requirements that every candidate must present an original printed dissertation or thesis embodying results of independent research. Such a test, if honestly applied, is likely to be much more severe and exacting than writing answers to questions in the examination room. As women are eligible for the D.Sc., as for all other London degrees, it is to be hoped that, when a sufficient time has elapsed to allow of a decision being arrived at, there will be full returns published of the relative success of the sexes. Where is the difference between the Mahomedan decree which forbids fools, madmen, and women to call the hours of prayer, and the English law which, amongst all those who possess the necessary property qualification, denies a vote to lunatics, felons, and women. Some surprise has been expressed why more women have not replied to Grant Allen’s elaborate and purely biological article on the “ Function of the Sexes,” which appeared in the May number of the *Forum*, and which was a reply to Hester Ward’s article, “ Our Better Halves ;” but the fact is, that the majority of thinking, active women are too busy, and content themselves in being living denials to the theories of opposing pseudo scientists. It is because, too, women are finding out by experiment their own capabilities and limitations, that they can afford to pass by without comment Mr. Allen’s ideas of their limited spheres of action to the merely reproductive function, and to smile at the sentimentalities of others.

It is, as Mazzini says, long prejudice, an inferior education, and a perennial legal inequality and injustice, that have created the apparent intellectual inferiority (of women) which has been converted into an argument of continual oppression. People do not require from the oak that it should be like a birch, nor from the lily that it should resemble the creeping cestus.

With men it is the same ; they are allowed each to grow according to their bent and nature, and to become that which the Creator has called them to be ; but women, without

* By Dr. Manouvrier.

educational advantages, must be cast in one mould and follow one line, which is chalked out for them as if they had no souls of their own, to show them the way and to give them an individual bent. I am told that if women were given all the advantages they ask for, they would neglect their families for their studies. If they would do that for study, they would also neglect them for frivolous pursuits and dissipation.

Everyone has found out now that it is by exercise and not restraint that strength of body is developed, and yet, while we laugh at the Chinese for compelling the women to cramp their feet, there are people, I am afraid, still amongst us who encourage the much greater error of cramping women's minds. Freedom is the necessary condition of all healthy intellectual growth, and if you plant an oak, as Goethe says, in a flower-pot, one of two things must happen—either the oak will be dwarfed, or the flower-pot must break. That some people actually prefer dwarfed plants is quite evident. Although it is supposed that every faculty bestowed by nature is given for use, how can women fill the place nature has intended them to fill, unless they are allowed the fullest freedom, and the most favourable surroundings, for the unfolding of their powers ? A few years ago a girl applied for admission to one of the American Universities ; her request was granted ; but as a kind of reproof to her ambition, one of the sentences given her to translate from the Greek was this, from Antigone : “ Seeing, then, that we are women, ought we not to be modest, and not try to compete with men ? ” Having taken the highest honours in Greek, and finding herself indeed some way ahead of every man in the class, she could not resist the temptation to retaliate by introducing into her Greek composition the following : “ Seeing, then, that we are men, ought we not to be ashamed that we are vanquished by a woman ? ”

In examining the mental calibre of uncivilized nations, especially the aborigines of the Australian bush, I have found that the habits, works and thoughts of women are almost identical with man's, and the difference in size and mental development is less than it is with civilized people. In civilized nations, however, we find a great variety in taste, in work, in general occupations and in manners, and a difference between the sexes is more noticeable. This is owing, I believe, to the general advantages which man has grasped, while woman has been left some way behind, and consequently has much to make up. The two sexes move through paths that approach parallelism at some points of their course, but we cannot expect them to travel the same road unless their brains and nervous systems reach a parallel in quality

and educational advantages. The theory of the five ounces less in the woman's brain-weight looks an insurmountable barrier, but when woman by the intensity of her mind is capable of absorbing the whole of man's wisdom so that she shall appear equal to him in all labours of the understanding, she may reach the higher masculine standard in astronomy, mathematics, science and literature. Listen for a moment to what I have been told regarding women. 1st, that her intellectual light is borrowed, just as the light of the moon is the reflected light of the sun ; that "she can originate nothing, not even in musical composition, in which her organisation would lead us to think she would excel ;" but what about Fanny Mendelssohn, who composed many of the pieces attributed to her brother ? 2nd, that "the office of her brain is not to organize, but to utilize and make fruitful in her own field the stores of wisdom which man has accumulated in his ;" but what about Mrs. Roebling, who continued the stupendous calculations in the building of the Brooklyn Bridge over the Harlem River during her husband's illness, without which work the bridge would not have been carried on ? 3rd, "women cannot grasp great theories ;" but how about Isabella of Spain, who comprehended and sympathised with the plans of Columbus, and aided him to accomplish his discoveries ? 4th, "they have not truly scientific brains ;" but what about Caroline Herschel, who performed drudgeries and calculations to help her brother, and also made independent discoveries, as did Mrs. Somerville and Maria Mitchell ? 5th, "they have no planning genius ;" but what about Anna E. Carroll, who planned a vast campaign during the Civil War in America, which threw victories into the hands of our northern generals and virtually saved the union ? 6th, "they have no executive power ;" but what about Mrs. Livermore, who planned and did priceless work at the head of the Sanitary Commission ? 7th, "they have no financial ability ;" but what about Mrs. Frank Leslie, who paid off a \$50,000 debt in less than six months after assuming control of the great publishing business left by her husband, and is now worth her hundreds of thousands of dollars ? 8th, "they have no inventive genius ;" but what about the elder Mrs. Butler, wife of the senior partner of the Germanstown woollen mills, who invented an improvement to a machine after her husband's death, which he and others had given up as impossible ? 9th, "they have no organizing power ;" but what about Miss Frances E. Willard, who has superintended for years the working of the most gigantic and finely-organized Society in America, wielding more influence for good than nine Presi-

dents out of every ten? 10th, "they have no literary talent of any sterling worth;" but what about Mrs. Stowe, who did more to abolish African slavery by her pen than any ten men by their speeches? 11th, "they can only think of one thing at a time;" but how did Charlotte Bronté write her immortal novel while toiling in the gloomy kitchen at Haworth? 12th, "they are incapable of manifesting courage, but are faint-hearted, run at danger, and are weak-minded;" but how about Grace Darling, who faced the storm when all the sailors said no boat could live on such a sea, and shamed her father into going with her by saying she would go alone if he did not care to accompany her? And, lastly, I have been told that literary and intellectual work do not agree with women; they wear out too soon under it. But what do facts prove? Hannah Moore attained the venerable age of eighty-eight. Joanna Baillie lived to see her eightieth year. Mary Russell Mitford was seventy, and Agnes Strickland seventy-four, when they died. Mrs. S. C. Hall lived to be eighty, Madame de Sevigné was seventy, and George Sand attained the age of seventy-two. Mrs. S. Siddons was seventy-six, and Fanny Kemble seventy-three. Of scientific women, Mary Somerville lived to be ninety-two, Caroline Herschel until she was ninety-eight. These are representative names, all of them intellectual workers, some of them scholarly women, whom all the world is proud to honour. The average life among the eleven is nearly eighty years. Where among any other classes of women can a better or, indeed, as good an average be found? Certainly not among farmer's wives, mill or factory operatives, clerks in stores, or the purely domestic or social types. These last never boast of longevity, and the claim is rarely made for them. An average of eighty years among any eleven persons devoted to literary work or hard intellectual labour offers convincing proof of the healthfulness of that occupation. That these persons happen to be women, makes a strong argument in favour of permitting women to follow intellectual pursuits without fear of a premature "shuffling off" or failure from sickness because of their sex.

Are we to believe that man's wisdom comes immediately from God, while woman's wisdom comes mediately through man? That woman's love comes immediately from God, and man's love comes mediately through woman? As love is the centre of life of all things, and as wisdom or truth is determined by the love from which it springs, so perhaps woman may be the motor power, while man may be the organizing power, of human life; woman may be the heart,

man the head of the social body ; woman may be the priest of the world, if man is its king.

It is thought by some that all love comes from woman, and all thought comes from man ; but how blindly unjust to both is such a supposition ; yet thought passing from man to woman may become feeling, while feeling flowing from woman to man may become thought.

This idea is beautifully illustrated by Dryden in his *Cymon and Iphigenia*. Does not a woman absorb the masculine forces, and bring them out into the material plane of life ? Does not a man respond to the excitation of the feminine principle by ultimating its forces on the mental plane of life ?

Either sex without the other would be incomplete, and as lifeless as one part of the human body would be if separated from the other. Sectional work could go out in separation but not complete work.

Now let us for a moment in conclusion compare anatomically the body and brain weights in man and woman, and we shall find that the relative difference is in favour of woman, though all scientists are not agreed on this mode of measurement. In woman we find her body is shorter, and weighs less, as a rule, than man's. In man the weight of the brain to that of the body has been found to be an average of 1 to 36·50, while in a woman it is 1 to 36·46, a difference of ·04 in her favour. It is however the absolute rather than the relative amount of grey matter that has to be considered in determining brain power. It must be borne in mind that the quantity of grey matter cannot always be positively affirmed from a determination of the size of the brain, though in general it can. Thus, a person, for instance, may have a large head and a large brain, and the cortical substance of the motor areas be very thin ; and another person may have the cortex so thick as to more than compensate for its smallness ; which bears out Bastian's theory, and that of all deep thinkers of mental science or psychology. And this brings our remarks to consider the recent discoveries of Dr. Manouvrier, of Paris, on the skull capacity of woman. In all times and places the overweening vanity of man has caused him not only to consider himself the "lord of creation," but to insist upon his superiority over woman, more especially from an intellectual point of view. The transmutation theory, founded by a Frenchman (Lamarck), and completed by an Englishman (Darwin), having made great strides during the last twenty years, the problem of the comparison between man and the monkey tribe, most closely allied to him, has therefore acquired great importance, and a considerable amount of work has been

accomplished in order to solve this question. Many writers, as ignorant as unscrupulous, have made use of this information to re-assert the superiority of man over woman, pretending that from an examination of the various anatomical types submitted to their investigation, there was a nearer affinity in the woman than there appeared to be in the man. But this mere assertion was soon upset, chiefly owing to the scientific investigations carried out by Dr. Manouvrier, attached to the Laboratory of Anthropology of Paris, and one of the most promising pupils of the late Professor Broca. Taking into consideration all the heads of information, which are very numerous and difficult to unravel, Dr. Manouvrier has proved unmistakably that an investigation of the chief anatomical characteristics in question, far from demonstrating the inferiority of the woman, on the contrary compels us to recognise in her even superior powers. Thus, for example, from the study of the skull capacity, we find, as placed in order,—1st, woman ; 2nd, man ; 3rd, monkey. A comparison of the greater number of the remaining characteristics gives nearly always the same favourable results to woman ; and all these facts are contained in a publication, on which M. Manouvrier has been engaged during the last five years, with unremitting industry, and for which the Faculty of Medicine of Paris have awarded him their silver medal, the highest award of that learned body.

Educate woman up to the masculine standard of thought, and fire her soul with the love of God, husband, children, neighbour, home, country, and the world will find in the expression of woman's opinion on every subject a new fountain and oracle of wisdom hitherto unknown. This psychological truth is beautifully illustrated by Schiller in the character of Thekla, in his *Wallenstein*.

The reason why the western nations have advanced so much farther in civilization than the eastern is, that the women of the former have been placed more on an equality with men than have the women of the latter. In proportion as the remaining inequalities of the sexes are removed, a still higher civilization will be reached. What is asked for is, that the social and legal status of women should be such as to foster, not to suppress, any gift for art, literature, learning, or goodness, with which women may be endowed. We have tried to prove that duality is found in all things : that the masculine and feminine elements exist throughout nature ; that man and woman are bi-sexual in themselves, but in relation to each other they are complementary ; that our desire is not to prove the superiority of woman over man ; but we have selected facts,

and the statements of the latest scientific authorities, which must open the way for further discoveries, as woman continues to be worthy of thought.

And, finally, if women marry later, and are the mothers of fewer children, may we not reasonably suppose that if there is anything in hereditary descent or genius, we may look to the future generation for producing more perfect men and women, because of the greater equality and more perfect quality of the sexes.

JESSIE ALLEN FOWLER.

DR. HENRY MAUDSLEY ON PHRENOLOGY.

ONE of the men whose writings may be said to be in harmony with the general teachings of Dr. Gall is Dr. Henry Maudsley, a well-known authority on Mental Science. I have learned a great deal from a careful study of his works, and I was delighted to observe his defence of what would have been considered, some fifty years ago, phrenological principles. Great was my disappointment, however, when I came across an article of his on Phrenology in the *Journal of Mental Science*, in which he not only scoffs at the doctrine, but shows that he, too, ventures to criticise a system which he only knows from the representations of antagonistic writers, or from the readily perused account rendered of the same by some half-informed zealot. Indeed, he confesses as much, with the addition that phrenology, even if true, is useless ; for "no advantage ever comes to anyone from an excessive attention to the elements of his own character, or the phenomena of his own mind." To non-phrenological readers it may appear that his rejection of the system is well founded, for he tested it practically. An examination of his statements, therefore, as far as the space allotted to me will allow, may be desirable.

Dr. Maudsley had under his care a patient whose head was remarkable for a very marked projection in "front" of the ear. What an excellent opportunity for examining the assertions of phrenology ! The patient had a particular and persistent delusion of a gloomy fear of death ; and, what joy for the phrenologists ! "it so happens that they locate the love of life precisely in that spot where the prominence in this death-fearing individual occurred." My readers will be aware that the "love of life" is not located "in front," but some distance behind, the ear. The learned doctor evidently mistook "Alimentiveness" for this faculty ; for not only was the patient's protuberance in the same region, but the case was one, he says,

of deep melancholy, such melancholy as makes a man miserable "without spoiling his appetite." To ascertain the truth of phrenology by actual measurement, Dr. Maudsley compared the size of the patient's head with that of a model bust. Who would ever have thought of comparing the dimensions of a living head with that of a plaster model? But this is not all. Loosing sight of the fact that size is a measurement of power only when all other conditions are equal, he proceeds to measure both model and head from ear to ear, *i.e.*, transversely, then from about the middle of the forehead to the occipital protuberance, *i.e.*, in its antero-posterior diameter; and lastly, he takes the circumference. The dimensions were so far satisfactory, that the transverse diameter of the death-fearing head was three-eighths of an inch more than the breadth of the model. However, two other heads of men with a decided desire for death gave unsatisfactory results when measured in the same manner; and "to accept one case and to ignore the other two, would be contrary to the plainest rule of philosophical investigation, though, without a doubt, phrenology would find some excuse for doing so," according to Dr. Maudsley. "But what possible excuse can there be for a so-called science which makes an assertion directly opposite to the fact? Why, there is a compensation in bumps, and the minus good or plus evil of one bump is happily often modified by the plus good or minus evil of another bump."

First of all, the measurement applied was insufficient to determine the size even of the animal propensities alone, to say nothing of the particular organ of the "love of life," which lies outside those lines the dimensions of which had been taken. Lelut, one of the greatest French antagonists to phrenology, committed the very same mistake, with a great deal of waste of time and labour. In his three books, in which he rejects phrenology, he endeavours to show that the system is not original, and that the carnivorous mammalia have narrower heads than the frugivorous in proportion to their length. He arrived at this conclusion by measuring—as above—the skulls and brains, on the one hand, of a dog, cat, lion, tiger, and taking the average, on the other, of a horse, sheep, ox, and other frugivorous animals. The two averages gave the above result. Who would have thought that a distinguished scientist could be so blinded in his antagonism, as not to see the error of such a method? In judging of the development of an individual organ, its size ought first to be compared with that of the other organs in the same head, and not with any abstract or ideal standard. A faculty is strong or weak in proportion to the other faculties

of the same mind. Herbert Spencer blamed the phrenologists for not listening to the adverse evidence furnished by independent observers ; but how sorely must their patience have been tried by evidences such as the above, which are the outcome of the blind following of Flourens, whose experiments seem to show that the brain acts as a whole and has no plurality of functions, the falsity of which was not demonstrated until 1870, at a time when phrenology had ceased to be in fashion.

Dr. Maudsley thinks that few who have been trained to scientific investigation will be found willing at the present day (in 1861) to enter into a serious discussion on phrenology. Real science rests content to leave it for the amusement of the pseudo-scientific and the profit of the designing. Of the latter he gives a sketch. He pictures the professional phrenologist as a swindler, who engages his client before examination in a conversation to find out the leading traits of his character, which he afterwards describes, marking the rest as average. Granted even that such men have existed, or do exist, only the most malicious and frivolous critic would use the fact as an argument against a science. For in what profession are there not deceivers ? and are there not in the medical profession more than in any other ? the only difference being that a follower of the acknowledged sciences must have certain qualifications, which are known to every one, whereas the scientific and the quack phrenologists have nothing to distinguish them.

However, in spite of this antagonism, Dr. Maudsley recognised the true principles of phrenology, and his works testify to the use he made of them. True, he rejects any detailed localisation of functions of the brain, but he is open to admit a wider generalization, such as, that "all broad-headed people are very selfish, that is to say, all who have the head broad in proportion to its length." He accepts the observations of the phrenologists so far as this, that an undue preponderance of breadth of head throughout the region in which the propensities are placed, indicates with certainty an animal self-love, which can scarcely be trusted at all times to adopt only fair means for its gratification. He is also aware that there is in the frontal region of the brain the greatest natural power : "the force of intellect, which by exercise and development is able to control the objectionable propensities indicated in the animal broadness of skull." Mere size, however, is by no means to be trusted alone, Dr. Maudsley rightly observes, as it forms but one element in a difficult problem ; "for while Napoleon, Talleyrand, Schiller, and Cuvier have had large

heads, Descartes had but a very moderate one." Conclusions, he thinks, must be general, and perhaps all that can be justly said is, that an enumeration of the bad features of a badly formed head, would include a narrowness and lowness of the forehead, a flatness of the upper part of the head, a bulging of the sides towards the base, and a great development of the lower and posterier (?) part. With those grievous characters might be associated a wideness of the zygomatic arch, as in the carnivorous animal, and massive jaws. A man so formed might be expected with some confidence to be given over hopelessly to his brutal instincts. Our critic is great on the facts of heredity. And what can be more phrenological, more harmonious with the teachings of Gall, than this : "The greatest blessing, almost, that any individual can have to be thankful for, is that he has been well-born—that he has come of sound parentage, not physically sound only, but morally and intellectually so also." This sentence clearly shows that Dr. Maudsley admits the innateness of the faculties, sentiments and propensities, that they are not acquired but inherited: and Dr. Gall was the first man to demonstrate this.

I have a still more beautiful quotation in store for my readers, one that will delight them in a greater degree and make them feel sorry that the author has not approached phrenology in a more serious spirit. "Is a man, then," he asks, "hopelessly chained down by the weight of his inheritance ? By no means entirely so ; for there is something else besides inheritance which makes fate—and that is, education. It is a physiological law, that the brain, throughout infancy, childhood and youth, 'grows' to the circumstances which it is placed among ; and therefore, the actual development of a brain may be much influenced by the sort of nutriment supplied to it as long as it grows. It would be rash indeed to venture to limit the effects which a right, reasonable, moral, physical and intellectual education may have on the worst inheritance. Everyone has, in fact, as it were, two inheritances : that which he receives by inheritance from his parents, and that which, after leaving his mother's womb, he receives when he enters the womb of time ; together these make his destiny. But given an individual at the meridian of life, with a bad inheritance and a bad education, the benevolent enthusiast may hope for his reformation, and, all honour to him, labour for it ; but the careful observer will be prone to smile at his expectations and, regarding them as a devout imagination, to compare them to those made to wash a blackamoor white."

I do think that if phrenologists had followed Gall's method

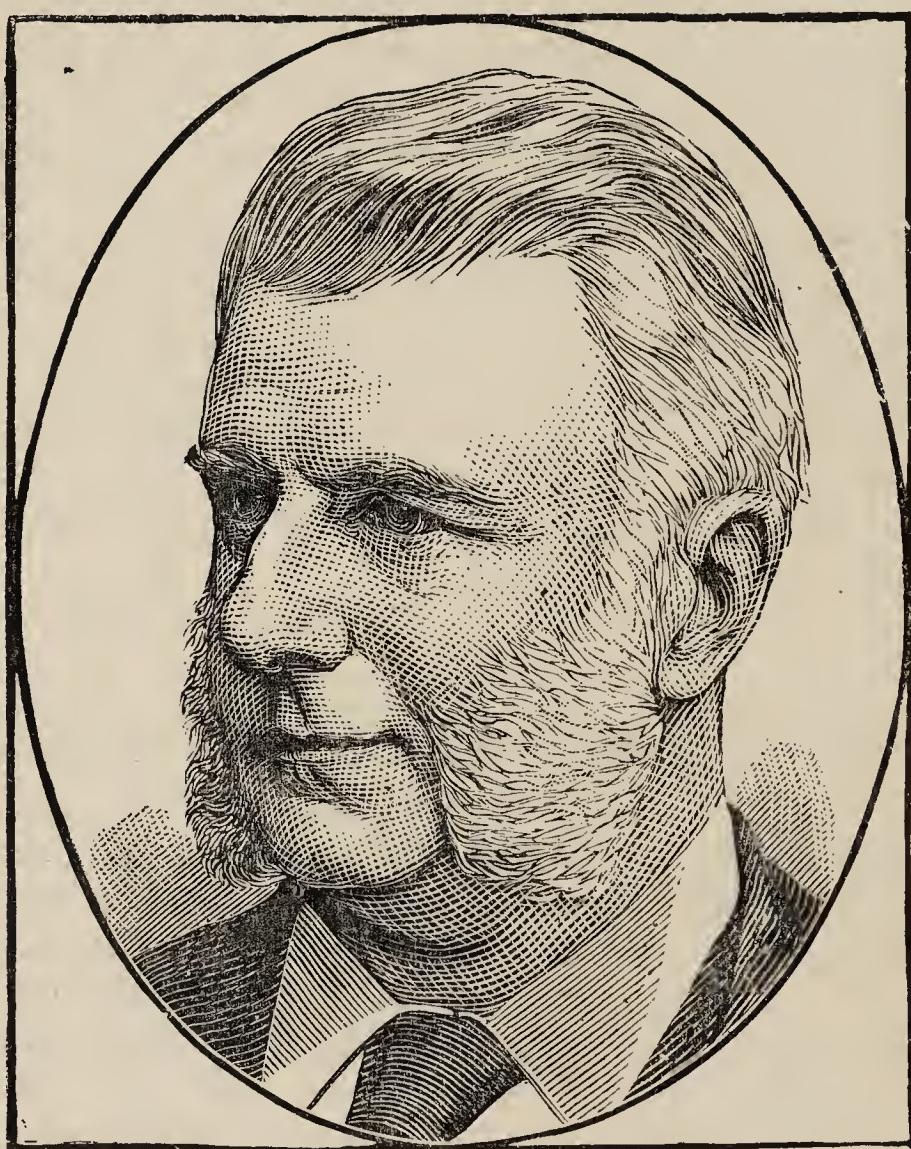
of investigation, and if they had translated his works, much of this unwarranted antagonism would never have arisen. Besides, should the new phrenology really make progress—and it seems to do so—the publication of Gall's original works would prevent it from taking the place of the old one. Some of the capacities of individuals are already investigated and defined with the greatest accuracy in anthropological laboratories; they forecast what the man is really fit for, what he may undertake with the least risk of disappointment; they promise to warn him from efforts doomed to be wasted, and to encourage him in that line in which he may best gain his livelihood. Such is their prospectus. Observe now the advance of physiology, Prof. Ferrier on new phrenological lines, the advance of mental science, Dr. Maudsley's scientific principles; observe the efforts of Auguste Comte and Herbert Spencer in positive philosophy; observe the distinction and recognition of criminal anthropology, and so on; and you may witness the resurrection of the old science in better-fitting garb, purer, and amidst greater glory. Phrenologists, unite! Educate yourselves—if you do not wish that all traces of Gall's glory shall be lost.

BERNARD HOLLANDER.

MEN AND WOMEN OF OUR TIMES.

SIR FREDERICK A. ABEL. The head of this gentleman indicates a high degree of ambition, and an uncommon amount of will-power and determination of mind. He must show unusual force, spirit and executiveness, and remarkable powers to analyse, discriminate, and understand the character and motives of people. He is prepared to make the most exquisite distinctions in the qualities of things, and is particularly minute in his observation of physical objects and phenomena. He remembers what he sees with great accuracy. Has a good eye for proportions, is naturally systematic, and well qualified to make estimates and to calculate with reference to profit, cost and loss. He is remarkable for the availability of his intellect; is not an abstractionist, and wastes no time in trying to do impossibilities. He can tell what he knows to the best advantage. He is more forcible and correct than copious in conversation, yet does not hesitate much, for his mind acts freely. He has all the indications of both moral and physical courage; will "stand by the guns" to the last. He has only cautiousness

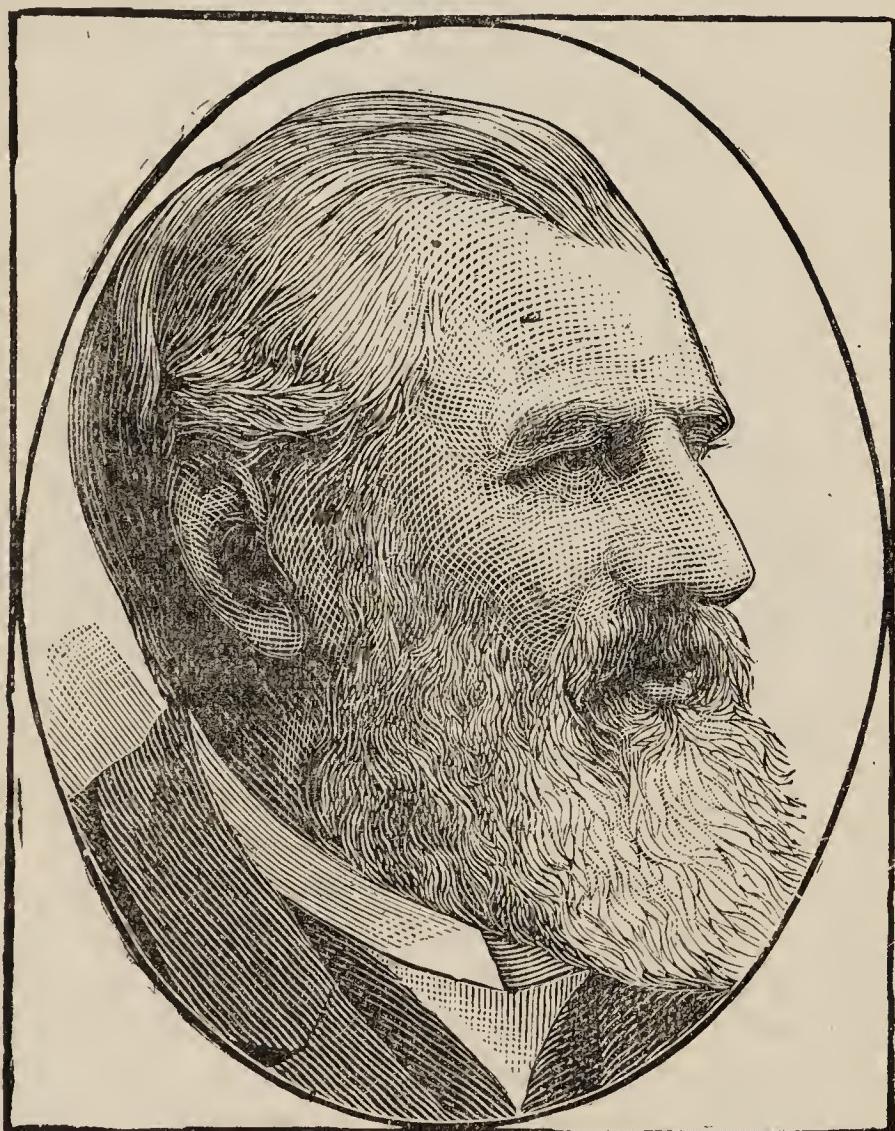
enough to be prudent, but none to be timid. He must have been liable in youth to expose himself to danger more than was necessary. The entire brain indicates a bold, executive, positive character, with great presence of mind in times of danger ; great hopes, anticipations, large enterprises, and a great thirst for knowledge. The expression of his face indicates a strong social, affectionate disposition. His forehead is uneven, which indicates that he is more analogical than original, and is governed more by his education than by



his own power of invention or originality of thought, though he should be ingenious in combining ideas and theories.

Sir Frederick Abel, C.B., D.C.L., the President of the British Association, was born in 1827, and is thus sixty-three years old. He is a well-known chemist, and is chiefly famous for his researches in explosives. He has written on such subjects as gunpowder, gun cotton, and electricity applied to explosives. He has been President of the Institute of Chemistry, and is chemist of the War Department, and Chemical Referee for the Government. He also sat on the Royal Commission on Accidents in Mines. He is one of Mr. Gladstone's Knights, is a C.B. and a D.C.L. of Oxford.

PROFESSOR FLOWER. The general form of head of this gentleman is favourable to mental action and uniformity of character. There appears to be no excess or deficiency, so as to produce eccentricity. He has, phrenologically speaking, a predominance of the intellectual and moral brain, and should be known for a high tone of mind and general consistency of life and action, as well as of religious fervour. He is not defective in the social or executive brain, but he is more particularly inclined to study and to do that which will



advance the happiness of others. His intellectual powers are specially of the practical, scientific, and experimental class. Few men have a more available intellect or are more capable of being successful in gaining knowledge by observation than he. His practical judgment of men, character, and the quality of things must be of a superior kind. His central brain from the root of the nose upward is very prominent. He is all alive to the condition of things around him. He is a student of nature, and is especially discriminating, analytical, logical, and illustrative in his method of teaching and talking. Order is decidedly large, giving method and system in his work. He seldom misjudges what he sees, and prefers to draw his

own inferences, and is remarkable for his intuitive perception of truth, and should be a very correct judge of human nature in its various phases of manifestation. One of the most distinct features of his face is his nose, which indicates a good disposition and a well-balanced mind.

Professor W. H. Flower, the retiring President of the British Association, is an eminent naturalist and director of the Natural History Museum, South Kensington. He was born on Nov. 30th, 1831. He early showed a taste for natural history, especially for collecting and dissecting animals, and thus was led to select the profession of medicine, and, through the study of physiology, he has become one of the most distinguished anthropologists and biologists of the age.

MRS. HARRIET BEECHER STOWE. The likeness of Mrs. Stowe indicates that she has changed somewhat from what she was years ago. The form of her head has actually changed. She now possesses more of the reflective brain than she did ; and the intellectual faculties as a whole appear to have more influence than formerly. She has a fully-developed perceptive intellect, but there has been a special increase of the reasoning faculties, while all the perceptive faculties are fully represented. Order is decidedly large, and consequently has a marked influence on her character. Her forehead also indicates large comparison, giving powers of discrimination and description. She has also large mirthfulness, giving her a keen sense of the absurd and ridiculous. Sympathy is a prominent faculty of her brain, while the moral group as a whole is large. Firmness is very large, and has a powerful influence in regulating her character and conduct. All the social brain is large, and gives warmth and strength to her disposition ; but the faculties that have had the ruling influence over her mind are the intellectual and sympathetic, consequently her influence must be wide-spread. Taking into account the whole active brain, including the Beecher blood and stock, she is able to use her talents to a better advantage, and has preached to larger audiences through her pen than almost any other woman.

Mrs. Stowe was born in Lichfield, Connecticut. From the earliest years she received the inspiration given by the continual sight of the lovely scenery of her native town. Her father, Dr. Lyman Beecher, was a man of power and influence, a strict Calvinist, and a man of bright and healthy spirit. Her mother, who died when Harriet was quite young, was a singularly attractive woman, graceful and beautiful in person, gentle in spirit, and possessed great artistic taste. Before

six years of age Harriet went to school with her brother Henry, and her thirst for knowledge rapidly grew. As a young girl she was engaged in teaching, and at twenty-one she married Professor Stowe of Lane Seminary. For seventeen years her married life rolled on without exhibiting talents of any remarkable degree. After her seventh child was born her



J. B. Stowe

intellectual power, which had been smouldering, seemed to suddenly ignite, her soul seemed to "catch fire." "Uncle Tom's Cabin" appeared in 1851, a book that pleaded for the slave more eloquently than the orations of Wendall Phillips, and more convincing than the arguments of Wm. Lloyd Garrison. Her name and memory will never die.

"ORION."

DR. T. R. ALLINSON AT THE FOWLER INSTITUTE.

ON Wednesday evening, Oct. 22nd, Dr. T. R. Allinson, the celebrated hygienic practitioner, gave an interesting and instructive lecture on "Health and Hygiene," before the members of the Fowler Institute; on this occasion the members met in the Board-room of the Memorial Hall, which was crowded.

The chair was taken by Wm. Brown, Esq., of Wellingborough (vice-president of the Institute), who, in his opening remarks, said :—I think it highly satisfactory and encouraging to see a gentleman of the medical profession come forward to show his sympathy with phrenology, and give a lecture before the members of the Fowler Institute. I think there is some ground for hope in the future that there will be a closer bond of union between the sciences, and I feel sure that even the members of the medical profession will gain considerably by their knowledge of phrenology. I will now call on Dr. Allinson, who will give us his lecture on “Health and Hygiene.”

Dr. Allinson, on rising, said :—Mr. Chairman, ladies and gentlemen, before I give you my lecture I must make a little comment upon what our chairman has said. As yet I am not a convert to phrenology, but, at the same time, I am not so great an opponent as I was previously to seeing Prof. Fowler three or four weeks ago, who examined my “bumps” and told my character as I have never had it told before.* My lecture before you to-night is on “Health and Hygiene.” Health depends upon ourselves to a very great extent ; indeed there are certain fixed laws to which we must adhere if we wish to be well. If we follow these, health will be our reward ; if not, we must expect to suffer the pains, penalties, and diseases of a shortened life. Health depends upon certain conditions, and these may be chiefly divided into four, viz. : the food we eat, the air we breathe, the exercise we take, and the condition in which we keep our skins. If you wish to be ill, use tobacco, stimulants, tea and coffee, and keep late hours ; these and other things will exhaust you quite quick enough. A person with an ordinary constitution, and who is obedient to these health laws, ought not to die under seventy years of age. The next question that arises is—What is the proper food of man ? for unless we settle this, we cannot take up the question of food from a rational standpoint. The doctor here described very minutely the different kinds of food, and the effects of each ; but the natural food of man should consist chiefly of wholemeal bread, fruit, nuts, vegetables, and eggs. Persons who adhere to the vegetarian mode of living will get on the best, and the food will be best adapted to their bodily wants : of all foods fruit should be the ideal one. Porridge, unfortunately, is not eaten sufficiently in this country. A good basin of porridge taken for breakfast will sustain a man for five or six hours ; he can work hard,

* The delineation appeared in the November “PHRENOLOGICAL MAGAZINE ;” a few copies of which can still be had.

have strong muscles, a clear brain, and will not be doing his system the slightest injury. The doctor strongly condemned the use of flesh meat, especially pork, and advised his listeners to give the vegetarian diet a trial ; by so doing they would find their health improve considerably.

The maxims inculcated by the lecture can be summed up in a few words, viz. :—Don't drink, don't smoke, sleep with your windows open winter and summer, eat wheatmeal bread always, with plenty of fruit, nuts, and vegetables, exercise regularly, and keep the pores of the skin open.

After a few appropriate remarks from the Chairman and several members of the audience, a hearty vote of thanks was given to the lecturer, and the meeting terminated.

Perhaps the doctor's own mode of living (in his own words) will be of interest to some of our readers.

"I have not eaten any flesh, fish, or fowl for nearly eight years ; am practically an abstainer, but would prefer wine and water to tea and coffee if I had to choose either of the two. I gave up smoking nine years ago ; have practically given up tea and coffee ; use rarely salt, pepper, mustard, spices, condiments, and sauces ; I rise between 7 and 8 a.m., throw open the bed clothes, have a wash all over, dry myself, rub the whole body, every limb vigorously. When dressed, I go out for half an hour's walk, no matter how cold, wet, or foggy. After follows my breakfast, consisting of six ounces of wheatmeal bread, two apples, oranges, or other fruit ; finish with a cup of cocoa, which has been standing since breakfast commenced, and is now rather cool than hot. Six ounces of bread usually last me well for about six hours. I eat slowly, masticate well, never eat or drink anything hot. Whilst drinking, each mouthful is kept some little while in my mouth. I take not more than three meals a day. Dinner at 3 p.m. lasts for about three quarters of an hour, breakfast half an hour. Three days during the week I may dine out at a vegetarian restaurant on vegetable soup, savoury, haricot beans, potatoes, cabbage, and milk pudding, or stewed fruit. My last meal, at 9 p.m., is similar to breakfast. Sometimes I may take eggs and cheese when out at friends' houses. I walk from eight to twelve miles every day ; first walk before breakfast, second after dinner, last walk before retiring to bed, which often takes place at 12 p.m. I wear an overcoat only when wet or travelling, walk at night with my head uncovered, have always fresh, pure air wherever and whenever I can have it my own way, avoid hot rooms as much as possible, pull up the blinds before jumping into my bed, get all the light and all the sunshine I can get, wear broad-toed boots with thick

soles, wear no flannel, abominate tall hats, though I wear one occasionally ; I eat no white bread and rarely use any soap."

For any further information respecting Dr. Allinson, we would advise our readers to get a copy of his works, advertised at the end of this Magazine, which can be had direct from this office.

THE BRITISH PHRENOLOGICAL ASSOCIATION.

AT the monthly meeting of the British Phrenological Association, held at the Imperial Buildings, on Tuesday, Nov. 4th, a paper was read by Mr. Hollander on "Objections to Phrenology." Mr. Hollander argued that if the modern localisation of the functions of the brain made by experimental physiologists really corroborates, as was shown before the British Association, the observations made by Gall, Spurzheim and Combe, the objections which were raised against phrenology can have had no foundation. Indeed, the first objectors brought forward the argument that phrenology would lead to fatalism, an objection which would apply equally well to modern brain-physiology, whose greatest claim it is to have proved the plurality of the functions of the brain corresponding to the diversity of mental elements. Of scientific men, Flourens was our greatest antagonist, and his assertion that the brain is a single organ was not disproved until 1870, a great many years after Combe's death. The objectors who argue that phrenology is not original, and those who argue that the size of the different parts of the brain cannot be estimated by the form of the skull, were next dealt with, and several authorities in favour of the phrenological theory were quoted. A lengthy examination of Dr. Maudsley's practical test of phrenology showed that distinguished scientists have committed wilful errors in order to cast ridicule on the subject. Auguste Comte and Herbert Spencer, former disciples of Gall, were severely criticised, and also those objectors, who, acquainted with the results of modern experimental physiology, see only localisations of muscular movements, but not of mental manifestation. Lastly, the objectors who argue against our doctrine on sentimental or religious grounds were dealt with. "Phrenologists," concluded Mr. Hollander, "do no more than study the laws of nature ; they do not alter nature. Unless our observations accord with actual facts, and are verified by experience, they are worth nothing ; but if they are verified, then phrenology is true and scientific. Researchers employing different methods must ultimately prove it to be so, whatever prejudice

or superstition may say against it in the present day." An interesting discussion followed, in which Mr. Cox, Mr. Hall, Mr. Webb, and Mr. F. A. Hubert took part.

PHRENOLOGY
PROVED, ILLUSTRATED AND APPLIED.
(Continued.)

3.—ADHESIVENESS OR PHILOPROGENITIVENESS.

Susceptibility of attachment—propensity to associate—fondness for society—inclination to love, and desire to be loved.

The chief office of this organ is to create those strong ties of social and, with amat., of conjugal affection, which bind mankind together in families, societies, communities, &c., and from which probably



MRS. CLEVELAND.

flows as much happiness, if not virtue, as from any other source. This faculty is very strong, and generally a ruling one, in women ; and its influence upon society is incalculable.

VERY LARGE.—Those who have adhes. very large soon become mutually and strongly attached ; desire to cling around the objects of their love ; are unwilling to think or believe ill of their friends ; sympathise in their misfortunes, and willingly sacrifice ease, property, happiness, reputation, and sometimes even life for their sakes. Their friends may be few, but will be dear, and their attachment mutual,

ardent, strong, and, with firm. large, constant ; their joys, hopes, fears, trials, &c., one ; their social intercourse delightful beyond description ; their separation painful in the extreme ; their loss agonizing, almost beyond endurance ; and the interruption of friendship a frequent source of partial derangement.

One having very large adhes., with very large destruct., combat., self-e., firm., and benev., and only moderate approbat., secret., and conscienc., will be a most ardent friend and an equally bitter enemy ; will never forget a favour or an injury, till the one is rewarded, and the other avenged or confessed ; cannot do too much good to his friends, nor evil to his foes ; and will make all his acquaintance either ardent friends or bitter enemies : with very large philopro. and large amat., sets everything by his family, and almost idolizes them ; cannot endure to be absent from home ; is pre-eminently domestic ; and, with very large benev. and conscienc., promotes their happiness by every effort ; and, with moderate combat. and destruct., regards the peace and quiet of the fireside as the greatest of pleasures, and family dissension as the worst of evils. One having large adhes., loves those best, and chooses them for his friends, who most nearly resemble himself, and gratify the largest number of his organs : with very large approbat., hope, ideal., and mirth., and only moderate conscienc. and caus., the gay and witty, the fashionable and showy, &c. : with very large moral organs, the eminently devout and religious, the sedate and the sentimental : with very large ideal. and intellectual organs, those who are highly talented, intellectual, and literary, but avoids the ignorant : with very large conscienc., requires, first of all, that his friends be perfectly moral and honest, but with conscienc. moderate, is not particular in this respect.

LARGE.—One having adhes. large exercises strong and ardent attachment ; is eminently social and affectionate ; seeks every opportunity to enjoy the company of friends, and feels very unhappy when deprived of it ; does and sacrifices much for their sake ; sets much by them, and goes far to see and help them ; and makes a real, true, warm-hearted, and devoted friend : with acquis. large, may love strongly, and be very hospitable and kind, yet unwilling to give his money ; but, with approbat. and benev. also large, may be liberal among his friends, and sometimes forward to discharge the social bill, yet will be as affectionate as he is liberal ; is very emulous to excel among friends, and cut to the heart by their reproaches ; and, if approbat. or self-e. is very large, and caus. only full, is jealous of those that excel him, and forward among friends ; assumes the lead ; and must be first or nothing : with moderate combat., destruct., and self-e., and large approbat., benev., conscienc., ideal., mirth., and reasoning organs, will have many friends and few enemies ; be amiable, and gain the good will of all who know him : with large ideal., will express his affection in a refined and delicate manner : with large event., will recollect, with vivid emotions of delight, by-gone scenes of social cheer and friendly intercourse : with large reasoning organs, will lay excellent plans for friends ; rightly appreciate their character ; and, with cautious. also large, be judicious in selecting them, &c.

FULL.—One having adhes. full will make a social, companionable, warm-hearted friend, who will sacrifice much at the shrine of friendship, yet sacrifice his friendship on the altar of the stronger passions; his friendship, though strong and ardent, will be less glowing and intense than that produced by large adhes. One having adhes. full, with large or very large combat., destruct., self-e., approbat., and acquis., will serve himself first, and his friends afterwards; form attachments, yet break them when they come in contact with the exercise of these organs; and, with large secret. and small conscien. will not be at all desirable as a friend, yet, after all, set considerable by his friends.

MODERATE.—One having adhes. moderate may be fond of society, and exercise some attachment to his friends, yet will sacrifice it readily; and, though he may have many acquaintances, will have no intimate and very dear friends: with large combat. and destruct., will become easily offended with friends, and seldom retain a friend long: with large benev. will bestow his services, and, with moderate acquis., his money, more readily than his affections; and, with the selfish organs large, take care of himself first, making friendship subservient to selfish purposes.

SMALL.—One having adhes. small, thinks and cares little about friends; takes little delight in their company; prefers to live and act alone; is cold-hearted, unsocial, and selfish; has few friends, and, with large selfish organs, a great many enemies, because he is himself so inimical to others.

VERY SMALL.—When adhes. is very small a man will be a perfect stranger to friendship.

While amat. is generally much smaller, adhes., philopro., benev., and conscien., are commonly very much larger in women than in men, by which the former are qualified, in a pre-eminent degree, to enjoy the domestic and social relations, and to discharge the duties of their station.

LOCATION.—The location of this organ is outward and upward from philopro., and above amat., and its shape nearly oval. It is found in that part of the brain known as the gyrus angularis, above the middle of the posterior edge of the parietal bone.

4.—INHABITIVENESS.

Love of home and country; desire to locate and remain in one spot; attachment to the place in which one has lived.

That there often exists a partiality towards particular places, and for no other reason than that one has lived there, is a very common phenomenon, and even necessary to man's happiness and well-being. This class of functions must be produced by some faculty; and the fact that its organ is found adjoining philopro. and adhes., the objects of which it directly and essentially aids, affords presumptive and analogical proof both of its existence and of the correctness of its location.

VERY LARGE.—One having inhab. very large, will be homesick, especially if philopro. and adhes. are also very large ; will suffer almost any inconvenience, and forego bright prospects of acquiring wealth, &c., sooner than leave his home ; and experience, only in a proportionally higher degree, the feelings attributed to this organ large.

LARGE.—One having inhab. large will have a very strong desire to locate himself in a single spot which he can call his home, and to remain there ; leaves the place of his nativity and abode with the greatest reluctance, and returns to them with delight ; soon becomes strongly attached to his house, his office, his garden, and is generally satisfied with them ; thinks a great deal of his native town, state, and country, and, when away from them, of those that have lived in them, &c. One having inhab. large, with philopro., adhes., ideal., individ., and local. large, will be extremely fond of travelling, yet too fond of home to absent himself long at a time ; in early life, will have an insatiable desire to rove about and see the world, and afterwards to settle ; with approbat. and self-e. large, will have high ideas of his country, of national honour, national advantages and privileges ; and, with large combat. and destruct., will be eminently patriotic, and ready to sacrifice all, even life itself, in defence of his country's rights and honour, and of his own fireside ; and, with large ven., will look with great reverence to those departed worthies who have served and honoured their country, and also to the national relics of past ages.

FULL.—One having this organ full will prefer to live in one spot, yet, when his interests require it, can change the place of his abode without much regret ; and, with large philopro. and adhes., will think much more of his family and his friends than he will of his home as such.

MODERATE OR SMALL.—One having inhab. moderate or small, with large or very large hope, individ., ideal., and local., will be very apt to change his location either in hope of improving it, or to see the world ; and, with large locality, will have an insatiable desire to travel in foreign parts ; unless prevented by strong reasons, will be likely to live, at different times, in several different places ; and, with philopro. and adhes. large, will regard his home not for its own sake, but for the sake of family and friends, and will not, by his mere love of home, be prevented from going where his interest or business leads him, nor be likely to suffer from a want of home.

VERY SMALL.—When this faculty is very small, the love of home or country has no perceptible influence upon the character.

Numerous striking developments of the organ, in conjunction with a proportionate strength of the faculty, and also many other instances of the deficiency both of the organ and of the faculty could be given. One of the most striking of the former, is the case of Judge Tucker, of Williamsburgh, Va., who, while yet in the prime of life, left a very lucrative and honourable profession for the sole purpose of living and dying where his fathers had lived and died. The organ is extremely large in his head, and also the organs of adhes. and philopro.

Between Spurzheim and Combe there exists a difference of opinion

concerning this faculty and that of concert. Dr. Spurzheim gives the location and analysis of inhab. similar to that contained in this work, but maintains that the organ of concert. does not exist ; while Mr. Combe maintains that the organ of concert. (which will be next analysed) occupies nearly the same position. But from the numerous and marked cases of a development of each organ in the absence of the other, and the perfect coincidence between the strength of these faculties and the size of their respective organs, of which, in no instance, have they seen a failure, the authors are thoroughly convinced that both are substantially correct—that there are two organs as analysed and located in this work.

LOCATION.—The location of inhab. is directly above philopro., and partly between and partly above the two lobes of adhes. Where it is large and concert. moderate, an angle is formed near the union of the lambdoidal sutures, between which and the occipital bone there will be considerable distance, but when it is small, no such organ will be found.

5.—CONCENTRATIVENESS.

The power of mental concentration and continuity.

The object of this faculty is to continue the operations of the other faculties upon any given subject, until they have thoroughly acted



H. FURNISS.—Continuity Large.

upon it and presented the result. The nature of the faculty may not yet have been fully analyzed, yet, of the phenomena ascribed to it there can be no question.

VERY LARGE.—One having concert. very large is confused if several things claim attention at once ; requires a long time to fix his mind upon any particular subject, or to divert it when once fixed ; in conversation is apt to be prolix and tedious, and wear his subjects threadbare, and if interrupted is greatly disturbed, if not vexed ; with individ. moderate and the reasoning organs large, is frequently abstract,

absent-minded, and so deeply buried in meditation, as to be unconscious of what is transpiring around him, and often dwells so long upon a subject as to distort it, and pursue it into absurd extremes. The style of Dr. Chalmers will serve as an illustration of the effect which this faculty produces upon the manner of communicating ideas.

LARGE.—One having large concenct. is thereby enabled and disposed to keep his whole mind patiently fixed for a long time upon a single thing ; to continue the existing train of thought, feeling, &c., and to exclude every other ; to impart unity and mutual dependence to propositions, arguments, paragraphs, parts of a sentence, &c. ; to dwell patiently on any subject of interest, and, with large intellectual organs, to go to the bottom of subjects, to investigate them thoroughly ; to run out processes of reasoning, and chains of thought, &c., in all their bearings and consequences ; to give his whole mind to one, and but one, thing at a time ; and to hold his mind to a train of thought, subject of study, piece of labour, &c., till they are entirely completed. It imparts a unity and connectedness to all the conceptions and operations of the mind, and yet, in doing this, prevents that intensity, and rapidity, and variety which are manifested without it. One having concenct. large, with large combat. and destruct., will prolong the exercise of anger ; with cautious. large, that of fear with ideal. large, flight of imagination, &c.

FULL.—One having concenct. full, will be inclined to dwell upon a thing to which his attention has been called, and also to impart as much perfection as may be to the operations of his mind, yet, when occasion requires, can change, without much difficulty, from one subject to another, and thus attend to a variety of objects within a limited time, and will preserve a happy medium between too great prolixity and too great brevity.

MODERATE OR SMALL.—One with concenct. moderate or small is able and inclined to pass rapidly and easily from one kind of study, book, conversation, thought, feeling, business, occupation, &c., to another, from point to point in argument, without connecting or arranging them ; does not systematically arrange his subjects ; fails to impart mental dependence to his sentences, paragraphs, propositions, and parts of a discourse, so that many of them could be omitted without affecting the rest ; throws out his thoughts in concise and distinct propositions, rather than in long paragraphs ; stops when he has finished, and even before he has sufficiently illustrated his ideas, passes to others, and again returns ; abridges his anecdotes and sentences by the omission of important particulars ; drops one sentence, subject, anecdote, &c., to commence another, and forgets what he was beginning to say ; wanders in contemplation through a great variety of different or opposite subjects ; throws off care and trouble easily, and keeps no organ long in connected action unless it is powerfully excited.

One having concenct. moderate or small, with adhes. large, thinks of his friends for the time being with vivid and intense emotion, but

only for a short time at once, yet is not, therefore, inconstant in his attachments : with combat. and destruct. large, may get angry quickly, but, unless the injury is deep and intended, cannot retain his anger : with the intellectual organs generally large will be more likely to make rather a general, than a critical, scholar, and more apt to have a smattering of all the sciences, than a profound knowledge of any ; soon gets weary of one book, study, &c., takes up another, and then refers to the first, thus studying by piecemeal ; prefers short pieces upon various subjects to long ones upon any—a newspaper to a book, &c. : with compar. large, may have bold and original ideas upon a variety of subjects, yet will not, without great effort or great excitement, have a chain of connected thoughts upon any, and will make rather a striking and immediate, than a lasting impression : with ideal., imitat., mirth., individ., event., lang., and the reasoning organs large, will make a better extempore speaker than writer, may give variety, but will never give copiousness, to conversation and discourse ; will lack the requisite patience to prepare his ideas for critical reading, and yet possess great versatility of talent. For the merchant, accountant, superintendent, and those who are called upon to attend to a great many different persons and things, moderate or small concent. is indispensable, and large, or every large concent. extremely detrimental.

VERY SMALL.—One having concent. very small, has so great a thirst for variety, and change of occupation, and is so restless and impatient, that he cannot continue long enough at any one thing to effect much, and will experience, only in a still greater degree, the phenomena described under the head of concent. moderate or small.

In the American and Australian heads this organ is generally moderate or small, which perfectly coincides with the versatility of their talents, and variety of their occupations. They often pursue several kinds of business at once, while the English and Germans, in whom the organ is generally large, experience the greatest difficulty in pursuing any other calling or occupation than that in which they were educated. The want of this organ indeed, constitutes one of the greatest defects in the present system of education. It is generally full or large in those who spend their lives in doing a single thing, such as factory tenders ; and this furnishes an important hint to those who wish to cultivate the faculty. It is generally, though erroneously, supposed, that a large endowment of this faculty is necessary to great power of mind and a transcendent genius. The fact is far otherwise. Franklin evidently possessed but a small portion of it ; and perhaps the majority of eminent men whom it has been the fortune of the authors to examine, have possessed but an indifferent endowment of this faculty. When it is weak the mind seizes at once what it seizes at all, and acts with so much rapidity, that a second subject is introduced before the first is completed, or, at least, before these operations are fully presented and illustrated ; so that such persons are liable to be frequently misunderstood from a want of sufficient explanation. Concentration of thought, style, and feeling, intensity

and power of mind, in which there is produced as it were, a focus of feeling or of intellect, is the result, not as is generally supposed, of concent. large, but of concent. moderate, an active temperament, and large intellectual faculties. Large concent. amplifies the mental operations.

The difference between concent. and firm. is this : concent. bears upon the particular mental operations for the time being, while large firm. has reference to the general opinions, plans, &c., of life. For example : one having concentrativeness small, and firmness large, will naturally prefer an occupation in which his attention would be rapidly called to successive things, all of which would have reference to his grand object of pursuit, and from which he could not easily be diverted. If he were a merchant, he would pursue his mercantile calling with perseverance, yet he would be able, without confusion, to wait upon many different customers within a short time, &c.

LOCATION.—This organ is located above inhab. and adhes., and below self-e. When it is large, a general fulness of this region will be observable, but no protuberance will be apparent ; when it is moderate or small, a proportionate semi-circular depression will be perceptible, in part encircling adhes. and inhab., and following the lambdoidal sutures. When inhab. is also small, the depression is widened at the union of these sutures. It is situated in the upper portion of the first occipital convolution.

E.—VITATIVENESS.

Love of life as such—unwillingness to die.

It is evident that a desire to live, disconnected with any of the comforts of life, and also with all the objects to be secured by living, constitutes a strong passion, not only in man, but likewise in some classes of animals. In some this instinctive love of life, and this fearful shrinking from death, amount to a passion, and nothing is regarded with more terror than dying. Hence the necessity of a faculty whose office it is to perform this class of functions, and also of a portion of the brain, by means of which it can manifest these functions.

One of the editors of the Washington *Telegraph*, in whom the organ was very small, and who, when seemingly at the point of death in consequence of a wound he had received, not only felt very little desire to live or fear of death, but even exercised his mirth, which was large, in a high degree, although in the expectation that each hour would be his last.

VERY LARGE.—To one with this faculty very large even the thought of dying will be dreadful, and he will most tenaciously cling to life, even though it be most miserable. The combinations under this head, except in degree, are the same as those under vitat. large.

LARGE.—One having vitat. large, aside from the enjoyment of life and the fear of death, will look upon life as one of the most desirable

of all objects, and upon death as "the king of terrors." This desire to live will also be increased by the desires of the other faculties. One having vitat. large, with the domestic faculties strong, will desire to live not only because he looks upon his existence here as a most desirable object, but likewise on account of his family and friends ; with acquis. large, for the purpose of amassing wealth ; with the intellectual organs large, to acquire knowledge ; with approbat. and self-e. large, to gratify his ambition, &c. But when these faculties are interrupted or disappointed—when adhes., for example, is wounded by the loss of dear friends, acquis., by the loss of property, approbat.,



M. MONTIFIORE.—Vitativeness Large.

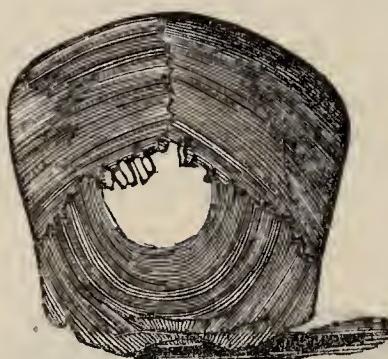
by disgrace, &c., the sufferings thus caused may be so much greater than his love of life, that the individual may wish to die, and by the aid of destruct., seek relief in self-destruction.

FULL.—One having vitat. full, with other organs large or very large, will desire to live, but rather as a secondary, than a primary, object ; and on account of his other faculties, rather than on account of his vitat.

MODERATE OR SMALL.—One with vitat. moderate or small, will seldom think of dying, and when he does will be much more affected by the consequences of death, than by a love of life ; be less careful of his health, and those means calculated to lengthen life, than he would be with vitat. large. In this case, death will be preferred to

trouble, and life desired rather as a means, than as an end, and for the objects sought to be accomplished.

VERY SMALL.—When vitat. is very small, a desire to live, and a shrinking from death will never be thought of.



Vitativeness Small.

LOCATION.—Vitat. is located nearly beneath the mastoid process, and partly between amat. and destruct.

[AN INTERVIEW WITH PROFESSOR W. CROSS.]

PHRENOLOGY has of late years so rapidly advanced in favour that its exponents are no longer regarded as impostors and charlatans who trade upon the credulity of others, but as persons who speak with authoritative knowledge based on scientific facts. Believing that many of my readers would be interested in the subject, I sought an interview with Professor Cross, who lectures twice daily and publicly examines heads at the Royal Aquarium, Westminster. The Professor is a genial enthusiast with a keen appreciation of character, founded not only on "ze bomps" but on general appearance and signs which to the ordinary observer have no significance. Though with a somewhat hesitating footstep I followed the Professor to his office, the feeling of indifference soon passed away, and I ventured to put a few leading questions.

"Sorry to disturb you, Professor, but I should like a little information about phrenology, which you seem quite able to give."

"Do you consider that phrenology is of any practical use to everyday folk?"

"Certainly, no science touches man so closely in all his relations and possibilities. All persons have gifts varying and varied, and every man is fitted by nature for a special work; if this talent be discerned at an early age and careful attention given to its development, the result will be a superb workman in that particular industry. On the other hand, we are constantly seeing square men in round holes which they neither fill nor ornament. Had these persons been examined by a capable phrenologist before they commenced life's work, the result would have been that they would have filled the positions

for which the Creator intended them, and thus happily lived useful lives. As it is, life is full of friction, they are incapable of grasping the work given them to do, and thus life is a burden where it should be bright and sunny."

"Then you think it would be better if every schoolmaster were a phrenologist?"

"It would be a blessing if it were so, for then education would be infinitely more useful than it is at present, for this science has a two-fold side: in every child there are not only talents which should be cultivated but tendencies to be guarded against, and a knowledge of these will save the future from ruin and shame. Phrenology can point out these, and thus, humanly speaking, be a saviour of men."

"I fancy, Professor, I heard you say something about marriage in your public examination. Would you mind repeating your remarks?"

"I am too pleased to do so. Some men, and I am afraid ladies too, only think of getting married, and give little attention to the suitability of the person with whom they ally themselves. This is lamentable. What is the possible future of two people both with combativeness large and cautiousness small, or with self-esteem large and veneration small, or with acquisitiveness small, which means "to spend money, without judgment," and the counter-balancing faculty entirely absent? Such marriages can have only one end,—the misery and ruin of both lives. A visit to my office would have warned them both of incompatibility and perhaps prevented the subsequent disaster."

"Perhaps it is hardly a right question, Professor, but are you fairly successful in your reading of heads?"

"In every case after a public examination I ask the person before the audience for his opinion of my estimate of his character, and in almost every case the testimony is favourable. On one occasion I examined the eminent physician, Sir William Gull, and though at the time I did not know who he was, I received his commendation for my truthful reading. But I think the best proof will be to read your own head, if you will allow me."

Now modesty compels that I should close this account of my interview, for I could not see through my blushes were I to print the one or two favourable remarks made by Professor Cross.

Thanking the Professor for the information, I thoughtfully wended my way home, and found myself in imagination all the night examining the heads of innumerable readers of the *Free Press* trying to find out the size of their specially appreciative bump.—*Nottingham Free Press*, Oct. 3rd, 1890.

MR. FOWLER and daughters will be pleased to meet the members of the British Phrenological Association and of the Fowler Institute, at a *soiree*, on Monday, December 29th, at 7 p.m., in the Institute Rooms, Imperial Buildings, Ludgate Circus. Will members desiring to be present please send their names at once to Miss Fowler? Tickets for members' friends may be had for one shilling each.

Notes and News of the Month.

WILL members who intend entering for "The Fowler Institute" examination send in their names to the Secretary not later than Dec. 27th, 1890?

THE monthly meeting of members of the Fowler Institute was held on November 12th, in the Institute Rooms, when Mr. Moody read a paper on "Phrenological Observations," illustrated by original drawings, which showed the great perseverance and thought the student had given to the preparation of his subject. Mr. Fowler made a few remarks at the close, and gave an examination of one of the audience.

SUBSCRIPTION OF THE PHRENOLOGICAL MAGAZINE FOR 1891 TO BE REDUCED.—Having received several complaints from country readers of their inability to get the MAGAZINE through their booksellers, the publisher has decided to reduce the subscription price to 6/- per year (in advance), post free, colonies 9/-, and hopes that those experiencing any difficulty in getting a copy monthly will order direct from this office. Now is a good time to subscribe for 1891, a new volume commencing with January next.

IN response to many enquiries from the provinces, Mr. Fowler has decided to give a thorough course of instruction in phrenology, physiology, and kindred subjects, through the post. Hence persons residing at a distance who are unable to attend the Fowler Institute, London, can have a course of instruction by letter, and pupils at the end of the year, if they choose, can come up to the examination in London, and receive certificate or diploma according to proficiency. Owing to the extra amount of correspondence this will make, only a limited number of pupils can be received. Persons desirous of joining this new branch are requested to communicate early with the Secretary of the Fowler Institute, Ludgate Circus, London.

What Phrenologists are Doing.

[We shall be pleased to receive for insertion under this heading, reports of lectures, meetings, or engagements of phrenologists. In sending notices correspondents will oblige by enclosing their communications in an envelope and addressing them to the office of publication of the PHRENOLOGICAL MAGAZINE. Newspaper cuttings pasted on post-cards are an infringement of postal rules and subject to a fine.]

MR. NICHOLAS MORGAN finished a successful visit to Newport, Mon., on Friday, Oct. 31st, and opened at the Colonial Hall, Cardiff, on Monday, Nov. 3rd.

MR. T. GODFREY, of London, has opened an office at the Victoria Hall, York, where he is giving lectures and private consultations daily, and reports very fair business.

PHRENOLOGY is now generally accepted as being scientifically true. Of course it is an empirical not an exact science. Physiognomy has not yet established any such claim. Still, Lavater is worth attention. It is quite possible that in time the language of the features may come to be correctly understood as an index of the mind.—*Christian Commonwealth.*

WESLEYAN YOUNG MEN'S INSTITUTE.—The attraction at the weekly meeting last night was a discussion on "Phrenology," which was introduced by Mr. F. Peel. Professor J. G. Kyme, of Gomersal, M.B.P.A. (Lond.), who defended the science, displayed a number of interesting sketches to illustrate his arguments. The attendance was large. Mr. Nottingham presided.—*The Herald and Courier.*

CHARLOTTE STREET FREE METHODIST CHURCH.—A series of lectures in connection with the above Church has been arranged for during the winter months. On Thursday evening, Nov. 6th, Mr. L. N. Fowler, gave his popular lecture "Health and Long Life," to a very appreciative audience. J. Wright, Esq., of Brixton, presided, and introduced the lecturer with some very appropriate remarks. He said "if phrenology were better known and taught more in our schools, we should find it a national benefit. We cannot do better than enter into the study of the mind." On Thursday evening, Nov. 13th, Mr. L. N. Fowler gave his interesting and instructive lecture on "Love, Courtship, and Marriage," to the members and friends of the Social Guild Stepney Meeting House. There was a large attendance, the pastor, Rev. J. F. Brooks, presided, and afterwards submitted his cranium for Mr. Fowler's manipulation, the correctness of which was corroborated by the subject and audience also. There is a very hearty staff of workers in connection with this Guild, and we feel every confidence in recommending all residents, especially the younger branches of society, to become members of this Guild and help on this good work by their influence and subscription.

PROFESSOR and Mrs. John Thompson,* the well-known phrenologists, of Scarboro', have just finished a most successful professional visit to Sunderland, where they occupied the Assembly Hall, Fawcett-street, which was crowded nightly. During the lecture on "How to read character," the professor pointed out that many men of great ability had wrecked their lives by not knowing exactly how their powers might be best applied. Other men of good health and fair ability had achieved great success in life by keeping clear of enterprises or businesses for which they were not adapted. He denied the allegations that phrenology was a fatalism and un-Christian. He believed that every man to a certain degree was fated, that was, if he was born into the world with defective organisms. Having described

* Mr. Thompson is the author of "Phrenology and its Uses," embracing the choice of pursuits, how to save money, and how to make life a success. Price 1s., cloth 1/6, which can be had from the office of this Magazine.

the heads of some of the most prominent men of the present and past generations, Mr. Thompson advised all to expend trifling sums in order to secure the advantages which were to be obtained from phrenology.—*Sunderland papers.*

HYPNOTIC DEMONSTRATION AT NEWPORT.—A useful entertainment, which provokes laughter and astonishment, the latter at the wonderful gifts of Mr. Morgan as a mesmerist, is being given nightly at the Albert Hall in this town. Mr. Morgan is perhaps the most distinguished of our phrenologists, and besides making a name for himself in the more serious branches of his business, he has become one of the best mesmeric entertainers alive. The features of his entertainments are numerous and attractive.—*South Wales Daily Telegram.*

MISS JESSIE A. FOWLER gave the first of a series of *matinées* on the 11th inst. at the Fowler Institute, Ludgate Circus. Mrs. Parker (wife of Rev. Dr. Parker), took the chair, and in a bright little speech introduced the lecturer. Miss Fowler devoted her remarks upon this occasion to "Psycho-Physical Culture." She emphasised the importance for women of physical exercise, especially for those who wished to do successful brain work. If the body was kept in a proper state of healthful activity, it was unnecessary for women to age so rapidly in appearance as they did at present. Children should be taught that all exercises were only of value in so far as the movements learnt by them were utilised in daily life. Referring to "In Darkest England," she rejoiced that General Booth had impressed upon the public that no great spiritual or mental improvement could take place amongst the poverty-stricken classes until their physical condition had been improved. Next Tuesday Miss Fowler will discuss the subject of "The Brain and Nervous System."—*The Queen*, Nov. 15th.

ON Tuesday afternoon, last week, Miss Jessie Allen Fowler (daughter of Professor L. N. Fowler), commenced a course of weekly *matinées* in the Lecture Room, Fowler Institute, Imperial Buildings, Ludgate Circus, on the subject of Psycho-Physical Culture. Mrs. Parker, who presided, said : Though it gives me sincere pleasure to be here to-day, and co-operate in any way in my power with my most excellent and indefatigable friend Miss Jessie Fowler, yet I cannot but feel that my finding myself in the position of taking the chair at a public meeting for the first time in my life is due to the exercise of considerable cunning on the part of Miss Fowler's ambassadress, Mrs. Piercy. But in whatever manner taken, I am very glad to be here and to express my hearty appreciation of Miss Jessie Fowler's varied efforts for the elevation and instruction of her sex. I believe that Miss Fowler's mother, for whom I have always cherished a most warm affection, was the first woman I ever heard speak in public. I was then, I suppose, about fourteen years of age, and it is so many

years ago that pondering on the vast lapse of time gives me a sensation of extreme venerableness. It was about that time that Professor Fowler, whom age cannot wither, first laid his wizard fingers on my head. At that time, or at a later period, I forget which he told me, that my brains would continue to develop till I was fifty—which is a most cheering reflection, and one to which I cling with great tenacity. Whether this be so or not, it is certain that it can never be too late for any of us to learn—and I for one am here to-day to be instructed. I don't know how Miss Fowler purposes to treat her subject, but of one thing I am very sure, and that is, that psychological conditions are very greatly modified and affected by physical conditions. Whilst we are in the flesh, this must needs be so—and, therefore, anything which throws light on the proper use and exercise of the body, must be useful to men and women in every relation of their life. We cannot do healthy spiritual work if the body with which we have to labour is in a morbid and diseased condition. I have much pleasure in calling upon Miss Fowler, who needs no introduction from me, to address you.—Miss Fowler then proceeded with her lecture, which was listened to with marked attention.—*News and Notes.*

Correspondence.

THE LEICESTER PHRENOLOGICAL SOCIETY.

To the Editor of the PHRENOLOGICAL MAGAZINE.

DEAR SIR,—The above was organized in October, 1885, and continued through two sessions. At the close of the second, a number of the members resigned in consequence of leaving the town; others followed during the summer months, after which it was not resumed. We numbered in all about 40 members. The sessions consisted of lessons on phrenology, physiology, and physiognomy, and papers upon a variety of scientific subjects, each session concluding with an entertainment, phrenological and mesmeric, which was given by the members to a good assembly of friends. We also commenced a library, which reached a number of the best works upon the sciences. During the past few months I have received several applications and advices to re-organize the Society. If any of your readers are interested in the same, I shall be happy to receive their communication anent the subject.

Yours truly,

38, Sherrard Road, Leicester,

THOS. TIMSON, M.B.P.A.

September 18th, 1890.

W. D. W. writes: "I am very pleased with the china bust, and quite agree that it is an ornament, well modelled and well finished."

CHARACTER FROM PHOTO.—"I beg to say, to use my own words, you might have known me all my life, except I never thought of being a literary man or an orator, but I shall try to make myself one or the other. As for all the rest it is as true as A B C"—J. A. W., Ashbourne, Derbyshire.

Book Notices.

WE have received from the Fowler Institute, Imperial Buildings, Ludgate Circus, a work on *Practical Typewriting*, by Bates Torrey. It is an extremely useful book, and contains instructions about everything likely to be of service to the typewriter.—*The Office*.

UNDER the title of *The Man Wonderful Manikin*, L. N. Fowler, of Imperial Buildings, Ludgate Circus, London, E.C., publishes a really excellent paper model of the human frame, with removable layers. This excellent model is accompanied by a "key" containing a description of the various parts of the "manikin." As a means of educating the young in the structure of the human body, we can have no hesitation in warmly commending the model to the notice of parents and teachers.—*Health*.

MESSRS. FOWLER AND WELLS Co., of New York, have issued a useful book on *Practical Typewriting*, which those who are beginning to use the Remington typewriter will find it an advantage to study in order to get the general management of the machine, and particularly for good fingering, without which fast writing is impossible. Suggestions to amanuenses and rules for punctuation and abbreviations are given, also a number of examples of writing in *fac simile*. The book may be had from the Fowler Institute, Imperial Buildings, Ludgate Circus. Price 4s.—*Literary World*.

Phrenological Aspect of Modern Physiological Research. This pamphlet, recently issued by the British Phrenological Association, has received very favourable criticism from the scientific periodicals. The following criticism is taken from the *Homeopathic World* for November, the editor of which is John H. Clarke, M.D., Ext. Mem. Roy. Med. Soc. Edin. In his review Dr. Clarke says: "In this interesting pamphlet Mr. Webb makes use of the researches of brain-experimenters to prove the truth of phrenological doctrines. We are bound to say we think he has made a very successful attempt. For our part we cannot conceive that the many parts of so intricate and complicated an organ as the brain should not have special functions. We do not think it needed Professor Ferrier's experiments to prove that, and we have the strongest objection to such experiments. At the same time, Mr. Webb is perfectly justified in making use of Professor Ferrier's diagrams and explanations to support his contentions. The remarkable case of a man Gage, who had a crowbar shot through his head and survived, is referred to. He lived twelve and a half years afterwards, dying of epilepsy. The portion of the brain which phrenologists regard as the organ of the moral and intellectual faculties was destroyed; and Mr. Webb adduces in support of this the fact that the unfortunate man's character was completely changed after the accident. A sketch is given of the skull, with a bar in the track it traversed."

Ashes: a Tale of Two Spheres. By Hume Nisbet. (Authors' Cooperative Publishing Company, St. Bride Street, E.C.) There are

in an important respect, two radically opposite kinds of tale. There is the socially idyllic story, so to speak, from which money and the necessary vulgar affairs of life—such affairs as eating, working, etc., which, in what is called reality, occupy almost as much of our attention as do the higher emotions and sentiments—from which these are totally banished ; and there is its antithesis, in which these things—or the want of them—form the central, perhaps the only theme. Mr. Hume Nisbet's tale (we shall not call it a “novel,” since he has not done so) is of the latter class—somewhat painfully so. But it is more than this : it is a tale of extreme suffering—a realistic study of a corner of society which Mr. Nisbet seems to have studied. He has taken, as he says, the ancient Phœnician god, Baal-Moloch, to whom the children were wont to be sacrificed ; has brought him into this nineteenth century, still holding to his “ancient appetites the lives of children ;” and, after “having studied him enough,” has “sat down and written out his adventures and those of his victims :”—much as was done for a greater than Baal-Moloch. He turns out accordingly a monster—in the shape of an “art-editor.” Although real monsters are so rare in our time, this exceptional one would not have mattered much, had it not been unfortunately that we find nearly every character in the book is a greater monster. In other words, the hero, though seeking with open-hearted frankness for the love and sympathy of human creatures, finds only mendacity, fraud, robbery, infamy, hard maniacal greed, vampirism, ghoulishness, burlesque villainy—our abstract nouns fail us ! He is a Jean Jacques on a much larger scale. To add to all which, he loses one by one his dog, his cat, his starling, and his two little daughters—all devoted to him, and all exceptions from the usual libels on human nature surrounding him. And now note the satire—or perhaps the guilelessness—of Mr. Nisbet ! “In real every-day life,” he says in his preface, “there are no such basenesses practised among men of the world, and no such extremes meet. People now-a-days do not suffer as the Dave-locks are supposed to suffer ; and no such windfalls occur at the exact moment as here depicted.” Dirk Davelock is an artist and illustrator, as well as something of a writer,—a struggling young man of genius with a wife and half-a-dozen children, who proposes to the great publishing firm of Grabbleson & Co. the idea of a sketching and writing tour in Australia, on which mission, after much equivocating and lying on the part of the firm, but chiefly of its art-editor, the said Moloch, he is sent, bound down, however, to a totally inadequate time, and burdened with an “assistant” whom we can only describe as a disgusting minion of Moloch. We have an interesting account of this tour, which includes a long tramp with a dog and an aboriginal through the north country, a sojourn of six weeks in the mountains during the floods, a raft journey, encounters with natives, malarial fever, etc., all which the author's own Australian experience renders more impressive. While Dirk is away, the long series of suffering to his family commences, and he is himself given up for dead—a comfortable consummation to his scheming enemies. The

sequel—the way Grabbleson & Co. treat him, his subsequent struggles and sufferings, culminating in four days' starvation, etc., the windfall above-mentioned, and his revenge—we may pass. In conclusion, we are given some “revelations” of the picture-dealing business. When he no longer requires it, Dirk discovers a “rugged angel”—his secretary, to wit—who has been “clerk, tramp, bushman, man before the mast, but mostly tramp,”—a large-souled being, the highest point of whose sympathy is excited when he sees a woman with a hole in her right boot! But even he disappears before we have done. The only other creature who showed kindness to them is found to be a woman of the lowest depravity. The most interesting part of the book is the study of children, which is as profound as any mother's, or as Mr. Swinburne's.

Character Sketches from Photographs.

[Persons sending photographs for remarks on their character under this heading must observe the following conditions:—Each photograph must be accompanied by a stamped and directed envelope, for the return of the photographs; the photograph, or photographs (for, where possible, two should be sent, one giving a front, the other a side view), must be good and recent; and, lastly, each application must be accompanied by a remittance (in Postal Order) of 3s. 6d., for six months' subscription to the MAGAZINE. The leading traits will be given when 1s. in stamps is enclosed with the photograph, and the MAGAZINE containing the delineation will be sent.—Letters to be addressed to L. N. FOWLER.]

E. B.—Has a marked physiognomy, and a strong phrenological character; should be known for possessing an ardent earnest mind. She must have descended on one side from a long-lived ancestry. Her development indicates good powers of observation and an active consciousness of what is going on around her. She has good powers of association and comparison; is disposed to reduce her knowledge and experience to action; she does not waste time in abstract thoughts, nor in extravagant imagination, but is a thoroughly utilitarian woman. She should be known for her sympathies, her feelings of reverence, her strong will and steady purpose; is not a trifler; is decidedly energetic and industrious; not one of the greedy, selfish, grasping kind, but is economical and knows how to use her gifts and powers appropriately. She is more fond of home, family and the domestic circle than she is of society.

A. K. B.—Has a practical intellect; is governed by observation; is much interested in what is going on in society; is a good judge of what he sees; is quite companionable and entertaining. He is a man of the hour, lives in the present, and is not so absent-minded as not to know what is going on. Has an intuitive mind, is quick to draw inferences, to discern character, and talk and act in a direct manner. Is not specially witty, original or imaginative, and has more of a practical, scientific turn of mind than a philosophical, abstract one; is constitutionally a kind and tender-hearted man, and disposed to accommodate himself to others, and make himself agreeable; is respectful and knows his place, and is a law-abiding man; is social and fond of company, domestic in his feelings, prefers to be in society

to being alone ; is able to apply himself and give close attention to subject ; is more liable to plod and persevere until he has finished his task than he is to attempt many things without finishing ; is favourably organized for business, and would not be prodigal in spending money. Could so cultivate his mind as to be a good speaker and entertainer, but is better adapted to business than scholarship.

B. D.—Has a mind which acts rather slowly, does not come to his conclusions quickly ; is not brilliant by any means at first, and requires considerable motive to call out his mind so as to appear to a good advantage, but when his mind is fairly aroused and circumstances are favourable for mental development, he goes ahead, but it requires considerable motive to create an excitement or interest in a subject for him to appear to a good advantage. He is adapted for a wholesale business—that which requires comprehensiveness of mind ; would do to work with a company where there was much responsibility and thought required to manage it. He would be exactly in his element with a good education, and as a member of Parliament. He has good powers of observation, acquires knowledge from experience, and is a good judge of things, their qualities and sizes. He is a student of nature and delights to follow the order of nature. He has favourable talents for a speaker, although he does not appear to a good advantage for the first half-hour, but after that he is able to do himself justice. He has the power to make up estimates and calculations, would make a surveyor, a practical engineer, or a financier. He is not so much inclined to abstract thought as he is to the study of science, and the acquiring of knowledge connected with business. He is much interested in all that is going on in society ; is generally in earnest, can entertain company with pleasant stories and cheerful conversation. He is a genial, kind-hearted man, and could manage a business that requires method, system and calculation.

HOMO.—Could make his way where there was opposition and difficulty. Has all the indications of industry and desire to be practically employed, and could not take life in a quiet easy way. Can oversee men, but he will not be able to get as much work out of them as he would like, for he is a hard-working man himself and expects others to be the same. His talents are favourable for engineering. He has ambition enough to do almost anything, and specially to succeed in practical engineering. He is not fond of general society and gaiety, but very fond of society where he is appreciated. Has some taste for a literary sphere of life. Has not a good memory of details, nor ready command of language ; yet he has a thirst for information, and has good powers of comparison. His ability to study science, or teach what he knows about it, is favourable. He has an intuitive sense of character, and his first impressions of a stranger are as correct as those formed by a long acquaintance. Has a decidedly positive character. Is proud, manly, self-reliant, persevering, and given to thought and study. Is prepared to take the lead, if necessary, in business or in responsible work. He will appear

to be a little more proud and dictatorial at first than after an acquaintance. His social qualities are fairly developed, but the bent of mind is more to intellectual pursuits than to mere social enjoyments. Is fond of reasoning and developing a subject. Is quite a critic, and wants everything properly digested. Is not cruel and hard-hearted, but very tenacious of his opinion when he knows he is right. Is very much in sympathy with manly acts, and with a business where there is considerable responsibility. Is always in earnest, and not inclined to trifle. Is especially tender-hearted, and takes no delight in witnessing anything cruel. His ambition is of a moral and intellectual rather than a worldly one.

J. P. (Tullyman).—Has a favourable balance of organization ; will not be subject to many extremes if he lives a temperate life. Is capable of enjoying every minute of his existence, for he is not made up of strong antagonisms. He has a predominance of the vital and mental temperament. Can work hard if necessary, but prefers short jobs and plenty of them rather than one continued long one. He would prefer to get his living in some professional life rather than to work hard daily. He possesses much versatility of talent, and with proper cultivation would be a kind of universal genius. His talents as a builder and architect are prominent. His mechanical eye and judgment of proportions are good. He has the power to systematise work, and arrange business : is capable of doing his work methodically and systematically. He can enjoy himself where others would fail. He likes good music and lively conversation. Is quite alive to what is going on around him. He has an intuitive cast of mind. His first impressions are specially good. He seldom changes his opinion of a person from the first. Has a utilitarian kind of mind ; is not carried away with abstract thoughts and ideas. He appears to know all about a subject as soon as it is presented ; can answer questions as soon as they are asked, as well as if he took six weeks to think about it. His tone of mind is comparatively elevated, and he could not live a depraved, loose, wicked life, unless he sold his life to whisky and bad company. If he has moral courage enough to get right out on an elevated platform, and commit himself to doing good, he would succeed. He has imagination and scope of mind. It would be hard work for him to live a purely selfish life, but it will require considerable moral courage for him to live up to the standard which his organization favours him to do. In the long run he had better commit himself most thoroughly to the right and take the consequences, rather than to go between the good and the evil. Nature has done first-rate by him, and if he will do as well by himself he can make a splendid man. He will need to govern his love of nature, be careful of his habits and specially his appetite, avoid stimulants of any kind, avoid eating much animal food. Should at once begin to discipline his mind, and be doing that which he will wish he had when he has got through life. His wife should be of an intellectual type, highly ambitious in an intellectual and social direction, a comparatively wide-awake woman disposed to do her share of the work and take her degree of responsibility. Avoid a merely ambitious woman, who wishes to dress, show off, and get into society.

